The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 839.—Vol. XXI.] LONDON, SATURDAY, SEPTEMBER 20, 1851. [Price 6d.

Stannaries of Cornwall—In the Vice-Warden's Court.

TILLY *v.* MACINTOSH—SAME *v.* TRUSCOTT—SAME *v.* DICKINSON—SAME *v.* SMALL—SAME *v.* TREVILLION.

IN RE WEST UNITED HILLS MINE.

NOTICE IS HEREBY GIVEN, that, pursuant to the several Orders or Decrees made in the several above-named causes, and bearing date respectively the 19th day of August last, a PUBLIC AUCTION will be HOLDEN at Pearce's Royal Hotel, TRURO, on Thursday, the 25th day of September inst., at Four o'clock in the afternoon, for SELLING, in such lots as shall be then and there determined on, FIFTY (1110ths) PARTS, or SHARES, of the defendant, George Macintosh; TWENTY-FIVE (1110ths) PARTS, or SHARES, of the defendant, Nicholas Truscott; TWENTY-FIVE (1110ths) PARTS, or SHARES, of the defendant, William Dickinson; FIFTY (1110ths) PARTS, or SHARES, of the defendant, William Small; and TEN (1110ths) PARTS, or SHARES, of the defendant, John Trevillion, of and in the SAID MINE; and the LIKE PARTS, or SHARES, of the said defendants respectively of and in the ORES, HALVANS, MACHINERY, and MATERIALS, and OTHER EFFECTS upon and belonging to the SAID MINE.

For further information application may be made to Messrs. Hodge and Hockin, solicitors, Truro.—Dated Registrar's Office, Truro, Sept. 10, 1851.

PURSUANT to a DECREE of the HIGH COURT of CHANCERY, made in a cause of BIRCH *v.* PRICE, with the approbation of Sir William Horne, one of the Masters of the said court, peremptorily, by Mr. JOHNSON, on Friday, the 24th day of October next, at Three o'clock in the afternoon, at the Wynnstay Arms Hotel, in WREXHAM, in the county of DENBIGH, in one lot, the FREEHOLD ESTATE, consisting of PLAS MOSTYN FARM, COLLIERIES, and MINERALS of COAL and IRONSTONE, situate in the said parish of Wrexham. 2

Particulars may be had gratis, in London, at the said Master's Chambers, Southampton-buildings, Chancery-lane; Mr. N. C. Milne, solicitor, Harcourt-buildings, Temple; of Messrs. Hughes, Fairfoot, and Webb, solicitors, Clement's Inn; and in the country, of Mr. Jones, solicitor, Brynhyfryd, Ruthin; and Mr. Robert Humphreys Jones, solicitor, Wrexham; at the place of sale; and the principal inns in Ruabon, Liverpool, Manchester, Chester, Shrewsbury, Wolverhampton, and Birmingham.

Valuable FREEHOLD ESTATES, FARMS, and COLLIERIES, in the parishes of RUABON and ERBISTOCK, DENBIGHSHIRE, and CONTIGUOUS FARMS, in the parishes of ELLESMERE and ST. MARTIN, SHROPSHIRE.

MR. JOHNSON will SELL, BY AUCTION, at the Wynnstay Arms Hotel, WREXHAM, on Thursday, the 23d day of October, 1851 (unless previously disposed of by private contract, of which due notice will be given), precisely at Three o'clock in the afternoon, all that valuable ESTATE, called 3

PENYLAN,

situate in the parishes of RUABON and ERBISTOCK, in the county of DENBIGH, and ELLESMERE and ST. MARTIN, in the county of SALOP, containing upwards of 1600 acres of land, divided into compact farms, and let to respectable tenants, at rentals realising nearly £2000 per annum.

And also several very valuable COLLIERIES and MINES of COAL and IRONSTONE, now in full operation, and producing large royalties.

Also, the TITHE RENT CHARGES, payable out of the several townships of Cristionydd Kenrick, Dinhinlle-issa and Dinhinlle-ucha, in the said parish of Ruabon, which produce an annual rental of £307.

PART of the ESTATE, comprising the MANSION, delightfully situated, on the banks of the River Dee, celebrated for its salmon and trout fishing, within three miles of Ruabon Railway Station, and commanding the most beautiful views, and is suitable for the residence of a family of the first respectability, with the park, extensive woods and covers, abounding with game, together with several farms adjoining, and containing, in a ring fence, about 1100 acres, will be OFFERED FOR SALE in ONE LOT. The remainder of the FARMS, COLLIERIES, and TITHES, will be OFFERED FOR SALE in SEVERAL LOTS.

The Estate is in the midst of a sporting country, and is immediately adjoining the lands and park of Sir W. W. Wynn, Bart., whose kennels are contiguous, and presents an opportunity for the investment of capital rarely to be met with.

Maps and particulars may be had of Daniel Smith Bockett, Esq., solicitor, 60, Lincoln's Inn-fields, London; of Messrs. Duncan, Squarey, and Duncan, solicitors, Exchange-buildings, Liverpool; of Wm. Wood, Esq., solicitor, 18, Cooper-street, Manchester; at the principal hotels in Manchester, Liverpool, Chester, Ruabon, Shrewsbury, and Birmingham; of the auctioneer, in Wrexham; and of Mr. H. Jones, solicitor, Wrexham.

GLAMORGANSHIRE—SALE of Valuable FREEHOLD ESTATES and MINERALS

MR. THOMAS THOMAS will SELL, BY AUCTION, at the Castle Hotel, NEATH, on Wednesday, the 29th of October, 1851, between the hours of Twelve at noon and Two o'clock in the afternoon, unless previously disposed of by private contract (of which due notice will be given), in such lots and subject to such conditions of sale as will then be produced, the following valuable and improvable 4

FREEHOLD ESTATES—viz.:

The FARMS of MAESMELIN and PANT-Y-SHANEL, with the COTTAGES thereon and WOODLAND adjoining, containing altogether about 138a. 3r. 33p.

PENTWIN, containing about 47a. 0o. 29p.

A MOIETY of the FARMS of NOYADD WEN and TYR EINON, with the COTTAGES thereon and WOODLAND adjoining, containing altogether about 137a. 2r. 24p., all of which are in the parish of Cadoxton-juxta-Neath; and all MINES and MINERALS under a part, containing upwards of 200 acres, of the GLANBRANE ESTATE, situate in the parish of Llansamlet.

Particulars and plans are in preparation, and will shortly be ready for delivery.

Further particulars may be obtained of Messrs. Llewellyn and Randall, solicitors, Neath; or of the auctioneer, West of England Insurance Office, Neath, who will, on being applied to, give every facility for viewing the property.

NORTH STAFFORDSHIRE. 5

THE CHEADLE AND OAKAMOOR COPPER AND BRASS SMELTING, REFINING, WIRE-DRAWING, AND TUBING MILLS, communicating by a siding with the North Staffordshire Railway, driven by steam and water-power, replete with machinery, and in full operation, WILL BE OFFERED FOR SALE, BY AUCTION, at the Royal Oak Inn, in CHEADLE, in the county of Stafford, on Friday, the 26th Sept., 1851, at Three o'clock P.M., unless previously disposed of by private contract.—Particulars may be had on application to Rupert Ingleby, Esq., Cheadle; or Messrs. Ward and Son, solicitors, Newcastle, Staffordshire.

TO MINE PROPRIETORS.—TO BE SOLD, at MINEFIELD, ARGYLLSHIRE, a CRUSHING-MILL and WASHING APPARATUS, &c. The CRUSHING-MILL is of considerable power, having a cast-iron overshot water-wheel, of 36-feet diameter, driving crushing and chat cylinders, and four large break sieves, lashers, &c. There are several pairs of new cylinders ready to replace those in use; also a complete set of WASHING APPARATUS, with ore waggons, waggon-wheels and axles, and a set of blacksmiths' tools, bellows, anvil, &c. 6

The models of the machinery may be had with it, as they are all at the mine, in good preservation.

Parties wishing to carry on the mine may, with the machinery, have the remainder of the lease of silver-lead ore, yielding from 15 to 20 ounces per ton.

The mine is very favourably situated, lying at the head of Glen Creran, near Oban, and the ore or machinery may be put on board ship at 1s. per ton for land carriage.

Applications for purchase may be made to James Burgess, mining engineer, No. 49 Cumberland-row, Newcastle-on-Tyne.

WALL'S-END COLLIERY.—TO BE LET, and entered upon on or after the 28th day of September next, for such a term of years as may be agreed upon, all that CURRENT-GOING COLLIERY, well-known by the name of WALL'S-END COLLIERY, at present held by Messrs. Archbold and partners, under lease from the Dean and Chapter of Durham, comprising the COAL MINES under the whole of the lands belonging to the said Dean and Chapter, in the township of WALL'S-END, in the county of NORTHUMBERLAND. 7

The Low Main Seam, which has been sunk to at a depth of 22 fathoms below the Bensham Seam, and the Beaumont Seam, which has been bored to at a further depth of 23 fathoms, remain untouched throughout the Royalty. The Low Main Seam, in the royalty next adjoining, is of good quality, and is worked for gas purposes.

The Bensham Seam supplies the vend of the existing colliery. The colliery is contiguous to, and has shipping berths on, the River Tyne.

Plans of the workings of the colliery, and further particulars, may be known on application to Mr. E. F. Boyd, Urpeth Colliery, near Chester-le-street; or at the offices of the Registrar of the Dean and Chapter of Durham, 28, South Bailey, Durham.

Durham, July 2, 1851.

VALUABLE MINERAL ESTATE IN WALES.—TO BE LET, ON LEASE, for a term of 50 years, a very valuable PROPERTY in MERIONETHSHIRE. The Estate is extensive: it contains TWO large VEINS of SLATE, of superior quality—the one is a continuation of the Abergavenny Vein, which has produced £40,000 per annum profit, and has been worked very extensively; the other is a vein which has been opened on, and is at present in a state of work. The slate and slabs of this quarry are of the very best description, and of that fine blue colour so much in demand. There is also a very large copper lode passing through the Estate, upon which the proprietors have some men now at work. In addition to these, there is also a course of lead passing through the southern part of the property. 8

The whole comprises upwards of 332 acres, with the advantage of a fine stream of water passing through the same, and is only four miles distant from an eligible shipping port.—This valuable property, with the advantages therewith connected for forming an extensive and profitable investment, cannot be equalled in the Principality.

Every required information may be obtained from the proprietor by application at the office of Mr. Robert Linthorne, 1, Angel-court, Throgmorton-street.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, MINING BROKER, OFFERS his best SERVICES to CAPITALISTS for the PURCHASE or SALE of MINING SHARES, and transacts business only for principals.

Mr. Crofts has FOR SALE SHARES in the following MINES:—Wheal Zion, Okel Tor, West Polgooth, Appledore, South Tamar, Bedford United, East Tamar, Hignaton Down, East Gunnis Lake, Bodmin Consols, Warleggan, Silver Valley, Spearne Consols, Wheal Lovel, North Fowey Consols, East Russell, Devon and Courtenay, West Providence, Calstock Consols, and can PROCURE or SELL SHARES in all DIVIDEND MINES, and in particular a permanent one, paying £8 per share upon a cost of £35 per share, or nearly 25 per cent. per annum interest. 9

The increased business in mining shares is producing more regularity in prices, and rendering transactions of a more easy and satisfactory character. Mr. Crofts will (confidentially) give an opinion of the value of any mine within his knowledge, either personally or by letter.—Dated Sept. 19, 1851.

GENERAL MINING OFFICES.

23, *Threadneedle-street, London.*

MR. JOSEPH JAMES REYNOLDS, late of CAMBORNE, CORNWALL, begs to inform his friends and the public that he has COMMENCED BUSINESS as a MINING and GENERAL AGENT at the above office, and trusts, by paying a due regard to the welfare of his clients, that he will at all times merit their confidence. Having been connected with the management of mines in the most productive districts of Cornwall upwards of twenty years, and being in communication with some of the most respectable agents in the mining districts, Mr. Reynolds will be enabled at all times to furnish such information as may be relied on.

Mr. Reynolds has SHARES in the following MINES FOR SALE:— 10

Carvannall	Sydney Godolphin	East Balleswiddon
West Basset	Rocks and Treverbyn	East Buller
West Stray Park	East Pool	West Wheal Virgin
Pendarves & St. Aubyn	Cook's Kitchen	Wheal Gennys
South Condurrow	East Wheal Frances	Wheal Lovel
Wheal Unity	Great Wheal Sheba	North Fowey Consols
Wheal Gill	Great Wheal Baddern	Wheal Susan

And is a BUYER in the following MINES:—

Condurrow Tremayne	Treviskey and Barrier	East Alfred Consols
West Providence	West Wheal Seton	Mary Ann
Alfred Consols	Trelawny	Devon Great Consols

J. J. REYNOLDS will carry on business upon COMMISSION ONLY, making no intermediate price between buyers and sellers, and will be ready at all times to introduce the buyer and seller of any shares to each other.—Office hours Ten to Four.

MESSRS. FRANCIS & CO., in order to avoid the complicated and indefinite system of CALLS for working or proving mines, consider that a better and more satisfactory one will be found in offering the public those chiefly in which the machinery and underground work required to bring them into a state of profit has been completed and paid for.

In mines thus far advanced, it will be obvious that as there will be no risk, so there can be no necessity for calls—the speculative part of the adventure having been gone through; and in this way capitalists will be enabled to invest with the certainty of immediate returns. 11

Mr. MATTHEW FRANCIS takes leave to announce, that he has several THOUSANDS of POUNDS WORTH of SHARES to DISPOSE OF, which, at the selling price, give a profit of from £20 to £40 per cent.

*** Offices, No. 7, John-street, Adelphi, London.

MINING SHARES.—Mr. HENRY VATCHER, EXETER, OFFERS his ADVICE and ASSISTANCE to PARTIES willing to INVEST in the ABOVE SECURITIES. Ten years' residence in Exeter, together with periodical visits to nearly all the Mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, practical and experienced agents, so that if any inspection is required, the same can be done without delay. 12

MINING AND RAILWAY OFFICES, No. 3, CASTLE-TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHARE-BROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms, and at one-half the commission usually charged. 13

MESSRS. TREVARTON AND CO., MINING SHARE DEALERS AND BROKERS, 14

5, *ST. JAMES'S-STREET, PALL-MALL, LONDON.*

MINING INVESTMENT.—T. FULLER AND CO., No. 51, THREADNEEDLE-STREET, LONDON, beg respectfully to inform the public that they are in a position to BUY and SELL in all the DIVIDEND-PAYING MINES, which upon present purchase will pay from 15 to 25 per cent., and have on hand Bedford United, Devon Great Consols, Mary Ann, Trelawny, West Caradon, Great Wheal Friendship and Venton, Baringdon Park, Wheal Catherine, Franco, Zion. Also shares in Wheal Williams—this is a continuation of the Devon Great Consols, and embracing several of the same lodes; also Devon Consols North—this adjoins the latter, which, with £1 paid, are marketable at £300, and paying £43 per annum in dividends.—Every information given, either personally or by letter.—Office hours from Ten to Four. 15

MINING INVESTMENTS.—Mr. CREFT, No. 1, ROYAL EXCHANGE BUILDINGS, LONDON, is always open to BUY or SELL (on commission) in DIVIDEND-PAYING MINES, or in the most ELIGIBLE of the YOUNG MINES, and will be happy to furnish all particulars by letter or otherwise. 16

Mr. CREFT has FOR SALE SHARES in MINES surrounded by Carn Brea, Wheal Buller, and other valuable mines, and under the best management in Cornwall.

N.B.—Carn Brea, £15 paid, are now worth £105; Wheal Buller, £5 paid, are selling at £520 per share.

MOLYNEUX & CO., MINE AGENTS, No. 34, THREADNEEDLE-STREET, have SHARES ON SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to CAPITALISTS the safest and most unexceptionable investment. 17

*** Offices of the Wheal Langford and Baring United Mining Company, and Trebell Consols Mining Company, No. 34, Threadneedle-street.

REMOVAL—104, *Bishopsgate-street-within.*

MR. PEET, MINING AGENT AND GENERAL SHARE BROKER, has REMOVED to the ABOVE CONVENIENT OFFICES. The same attention paid as hitherto to all MINING BUSINESS of legitimate character; and in thanking his friends for former commissions, he solicits a continuance of their kind support.—Offices of Wheal May, Pentire Glaze and Pentire United Mines, Devons Consols West, and Wheal Hamlyn.—The strictest confidence observed in all transactions, and the registry of shares will be free, unless a sale or purchase takes place. 18

MINING, AUCTION, AND GENERAL AGENCY OFFICE, No. 3, GEORGE-YARD, LOMBARD-STREET, LONDON.

Messrs. TREDINNICK & CO. beg to inform their Friends and the Public that they continue to TRANSACT EVERY DESCRIPTION of MINING AGENCY BUSINESS, and have ON SALE SHARES in most of the DIVIDEND MINES in CORNWALL, DEVON, and WALES, as well as those on the eve of paying, and situate in the best mining districts.—Loans and Money Matters in general negociated; Mines Inspected, and Reports obtained from practical agents, and every information affecting the market value of mining property afforded gratuitously. 19

MINING OFFICES,—ST. MICHAEL'S CHAMBERS, ST. MICHAEL'S-ALLEY, CORNHILL.—Mr. R. TRIPP has for *bonâ fide* SALE shares in most of the BEST DIVIDEND MINES, including the following:— 20

South Caradon	Holmbush	Wheal Trelawny
West Caradon	Spearne Consols	Wheal Mary Ann
Alfred Consols	Treviskey and Barrier	Stray Park
Devon Great Consols	Wheal Tremayne	Trehane
Wheal Tremayne	South Tolgus	Tamar Consols
Lewis	Wheal Margaret	&c. &c.

And in others having present and prospective advantages, including

Great Wh. Baddern	South Tamar	Kingsett and Bedford
East Wheal Reeth	Wheal Carpenter	Wheal Unity
Bodmin Wheal Mary	Treville	Hingston Down
Bodmin Consols	Hennock (lead)	Wheal Russell
Wheal Arthur	West Ding-Dong	East Russell West ditto
Warleggan	Wheal Treasury	Wheal Crebor
East Tamar	Caradon Vale	Penzance Consols

Foreign.—Copiapo, St. John del Rey, Cobre, Linares, Worthing, &c.

REGISTRY FOR THE SALE AND PURCHASE OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON, Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES. 21

Shares for Disposal,		
Devon Great Consols	Wheal Mary Ann	South Caradon
Carn Brea	Wellingtons	Great Wheal Sheba
West Caradon	West Buller	Treviskey
Trelawny	Tolgus	Bedford United

N.B.—Statistical information furnished on British and Foreign Mines.—No Charge made for the registration of shares unless business be transacted.

MINING EXCHANGE.—The MEMBERS TRANSACT BUSINESS in the HALL OF COMMERCE, THREADNEEDLE-STREET, DAILY—commencing at Twelve o'clock. 22

MINING PROPERTY.—Mr. HERRON has SHARES in the best DIVIDEND-PAYING MINES FOR SALE, and which will give the purchaser 15 to 20 per cent. for the outlay. Amongst others are the following:— 23

North Basset	West Providence	Tincroft
West Buller	West Caradon	Cobra
South Frances	South Caradon	St. John del Rey
Treviskey	Wheal Trelawny	Copiapo
Alfred Consols	Mary Ann	Wheal Tremayne
East Wheal Rose	Devon Great Consols	Bedford United

And has also FOR SALE SHARES in MINES having a PROMISING APPEARANCE, and affording greater range for speculation, such as—

Crane and Bejawas	Trefusis	Treleigh
West Basset	Wellington	Kilbricken
Wheal Grenville	West Alfred Consols	Merlyn
West Frances	South Tamar	Grambler & St. Aubyn

Mining Offices, 33, Clement's-lane, Lombard-street.

MR. JOHN DAVIES, MINING SHAREBROKER, 24

No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.

MR. GEO. CARNE, DEALER IN STOCKS AND SHARES, 25

28, *THREADNEEDLE-STREET, LONDON.*

MOLYNEUX AND CO., 34, THREADNEEDLE-STREET, have ON SALE SHARES in first-rate DIVIDEND-PAYING MINES. They particularly call attention to some Welsh Mines, paying £20 to £30 per cent., with prospects of increase. Also other mines, holding out a certainty of large returns within a short period.—Samples of the ore to be seen at the offices.—Sept. 13, 1851. 26

MR. RICHARD GREENWOOD begs leave most respectfully to acquaint his Friends and the Public generally that he has COMMENCED the BUSINESS of an AUCTIONEER, APPRAISER, MINE SHAREBROKER, and general COMMISSION AGENT.—Mr. R. GREENWOOD having for many years been engaged in the Mining and Commercial business of this county, and being fully aware of the desirableness of strict confidence in those who arrange such transactions, does not hesitate to pledge himself to the conducting of whatever business may be committed to his care, with the strictest attention to the interests of his clients.

Parties entrusting property to Mr. Greenwood can be accommodated with an advance of money in anticipation of a sale 27

OFFICES—PYDAR-STREET, TRURO.

Dated August 15, 1851.

MINING OFFICES, REDRUTH.—JOHN ROBERT PIKE, GENERAL SHAREBROKER (on Commission only), being resident in the centre of the Mining district, POSSESSES great FACILITIES in the DISPOSAL OF or PURCHASING SHARES, INSPECTING MINES, &c., on the most moderate and honourable terms. 28

MR. THOMAS JORDAN, METAL BROKER, No. 75, OLD BROAD-STREET, CITY, exclusive AGENT for one of the BEST MAKERS of HAMMERED IRON, for MARINE, LOCOMOTIVE, and other ENGINES. Also AGENT for the SALE of SOUTH STAFFORDSHIRE and WELSH BAR, BOLT- and BOILER PLATE IRON, in all its varieties. 29

The Proprietors of Lead and Copper Mines in Devon, Cornwall, Wales, &c., will find great advantage in the quality and cheapness of the Iron they require, by seeking quotations through the Advertiser.

MR. ALFRED SENIOR MERRY, DEALER IN COBALT AND NICKEL ORES, AND ASSAYER IN GENERAL.—Address: 30

LEE-CRESCENT, BIRMINGHAM.

MR. JOHN PHILLIPS, MINERAL SURVEYOR AND MINE MANAGER, MARGARET-STREET, NORTH ADELAIDE, in the province of SOUTH AUSTRALIA, after three years' residence and two years' exploration in the colony, RESERVES his EXPERIENCE for BRITISH CAPITAL: awaiting the result of this advertisement in a suitable remuneration for past time and future services. 31

WANTED.—An English Gentleman, educated as an Engineer at the National Mining School at Paris, where he has taken his degree—an experienced draughtsman—perfectly master of the French language—desires an APPOINTMENT in one of the FRENCH or ENGLISH RAILROADS, in the locomotive department, or an EMPLOYMENT as SUPERINTENDENT of LEAD MINES or WORKS. The Advertiser has particularly directed his attention, in Germany and in England, to the Smelting of Silver-Lead Ores, and has acquired a practical knowledge of locomotives at the works of the Paris and Orleans Railroad.—Direct Mr. Bardon, *Mining Journal* office, 26, Fleet-street, London, or Rue Vintimille, 6, Paris, France. 32

TIN-PLATES.—An Established METAL AGENT in GLASGOW, having an excellent connection, is at present OPEN to undertake a COMMISSION from a MANUFACTURER for the SALE of TIN-PLATES. The Advertiser can refer to the leading iron firms in England, Wales, and Scotland. 33

Address "Tin-plates," at the office of the *Mining Journal*, 26, Fleet-street, London.

TO BE SOLD, BY PRIVATE CONTRACT, the whole of the FIRE-CLAY WORKS, situated at OLD CASSOP, near DURHAM, comprising STEAM-ENGINE, of 14-horse power, STONES, PUG-MILL, all complete; PRESSING MACHINE for large pipes, and DRAIN-TILE MACHINE; 4 kilns, and 4 large drying flats, 40 feet by 22 feet; branch railway and drift rails; all the moulds for chimney tops, &c., necessary for carrying out an extensive business, together with office, foreman's house.—These works are held under the Bishop of Durham by lease for 21 years, from May, 1847, and are connected by railway with Hartlepool, Sunderland, and Durham.—Terms, half cash, and the remainder in approved bills. 34

Application to be made to the Old Cassop Fire-Clay Company, Ferry-hill.

ANTHRACITE COAL.—A fine FIELD of this valuable FUEL TO BE LET, in the parish of BETTWS, by the side of the Llanelly Railway, 12 miles from the shipping port. The anthracite of this district has proved equal in quality to the Pembrokeshire, so highly prized for drying malt. This coal burns without smoke, on which account it has been used at the Great Exhibition in Hyde Park for working the machinery. When this coal is used with a blast, and vapour of water passed through, it produces a splendid fire, generating steam with extraordinary rapidity and the greatest possible economy of fuel. 35

This mode of combustion is termed by the inventor, Mr. T. H. Leighton, the "hydro-carbon fire," and possesses such manifest advantages, that it must, at no distant period, be adopted on board the Government and mail-packet steamers, on which event the value of this description of property will be greatly enhanced.—For particulars apply to Thomas Jones, Esq., the proprietor, Gelly, Cwm-Aman, near Llandillo.—August, 1851.

COPIAPO MINING COMPANY.—Notice is hereby given, that a DIVIDEND of FIVE SHILLINGS per share will be PAID on the shares of this Company, at the office, 22, Austinfriars, on Friday, the 10th October next, and following days. The dividend warrants are required to be left at the office two days for examination.—Please call between the hours of Twelve and Two.

By order of the Directors, ROBERT CLARK 36

22, Austinfriars, August 1, 1851.

TAMAR SILVER-LEAD MINES—FORFEITURE OF SHARES.—Notice is hereby given, that the following SHARES are ABSOLUTELY FORFEITED, in accordance with the resolution, dated 24th July last, previously advertised. The CALL of £1 per share, due 4th November, 1850, being UNPAID on the said shares, and the Numbers of which are as follows:—275, 276, 658, 787, 788, 797, 798, 799, 800, 801, 802, 803, 1113, 1114, 1116, 1117, 1120, 1121, 1128, 1129, 1130, 1131, 1151, 1154, 1155, 1186—say 26 scrip certificates, of five shares each = 130.

1265, 1266, 1267, 1268, 1494, 1545, 1546, 1547, 1548, 1549, 1550, 1551, 1610, 1611, 1629, 1647, 1663, 1664, 1665, 1666, 1667, 1857, 1858, 1859, 1868, 1896, 2020, 2028, 2029, 2062, 2338, 2372, 2389, 2390, 2400—say, 35 scrip certificates, of three shares each = 105. By order of the board, 37

Salvador-house, London, Sept. 11, 1851.

TRELEIGH CONSOLIDATED MINING COMPANY.—Notice is hereby given, that the ANNUAL GENERAL MEETING of the shareholders will be HELD at the offices as under, on Wednesday, the 8th of October next, at Twelve for One o'clock precisely. The accounts will lie at the office for the inspection of the shareholders two days previous to the meeting. WM. NICHOLSON, Sec. 38

57, Old Broad-street, Sept. 18, 1851.

TO IRONMASTERS, RAILWAY DIRECTORS, ENGINEERS, and FOUNDERS.—The SUBSCRIBER having been appointed SOLE AGENT in LONDON for the SALE of Mr. MORRIES STIRLING'S PATENT IRON, begs to intimate that he is prepared to SUPPLY Railway Companies, Engineers, and Founders, with the PATENT MALLEABLE and TOUGHENED CAST-IRON, and that all orders addressed to him for these, and also for RAILS, with Hardened Surfaces, shall have his prompt attention.

Specimens of the different Irons shown, and every information afforded, on application. Information as to the terms of License under Mr. Stirling's Patents will be given by the Subscriber, and also by Mr. JEE, C.E., 6, John-street, Adelphi. A. MACNAUGHT.

OFFICES,—2, Queen-street-place, Upper Thames-street.

WAREHOUSES,—Paul's Wharf, 25, Upper Thames-street. 39

LITERARY NOTICES.

The Process of Thought Adapted to Words and Language. By ALFRED SMEE, Esq., F.R.S., &c.

Mr. Smee is already well-known to the reading public by his various contributions in practical and theoritical science—Elements of Electro-Metallurgy—Electro Biology—Sources of Physical Science—Instinct and Reason, &c. The book now before us is designed to exhibit a mechanical analysis of thought, and the argument is of a varied character, consisting of a succession of grammatical, algebraic, and electro-biological positions. Its character is very likely to be mistaken by the majority of readers, most of whom would probably regard it as a *metaphysical* disquisition. It is nothing of the kind. Its real tendency, which does not, however, immediately appear, is essentially PHYSICAL. It proposes to carry us to the same result as that attained by Gall and Spurzheim, but by a different route, substituting the mechanism of electro-biology for that of phrenological conformation. But what is electro-biology? Not the science (?) recently taught by Messrs. Stone and Darling, but a system peculiar to the author. Let him speak for himself, and then, at all events, we shall escape the charge of misinterpretation.

"Electro-biology teaches that man receives impressions from the external world, through the medium of his organs of sensation—transmits those impressions to the brain, and there registers them in certain combinations, in such a manner as to render the sensorium one vast mechanism, in which every thing which has been heard, or seen, or felt, or smelt, or touched, has produced an effect which modifies the action of any impression which may be subsequently received."

Then there is an *example* of this in the supposed case of ten nervous fibrils, each of which is capable of communicating to the brain a distinct sensation, and only a certain number of which are affected at one time. This proposition, the author observes, may be illustrated by assuming the fore finger to represent some three or four of these fibrils, when it will be apparent that, if that finger is placed in hot-water, the idea of that particular action of the hot-water will be confined to the nerves supplying that part. [See p. 2].

Various thoughts and impressions being in this way received, through the medium of the nerves, their subordination and concatenation is sought to be exhibited in chap. 7, which treats of the "Relational and Differential Machines" invented by the author. With the details of these machines we do not profess to be familiar. One of them, however, is intended to exhibit mechanically the relation and dependence of thoughts and ideas; the other, *judgment*, or what may be termed the resolution of mental force in some determinate direction. These views will, doubtless, excite considerable hostility; but before such a feeling finds vent in the expression of adverse opinion, we would strongly recommend the opponents of Mr. Smee to read the qualifying paragraph at pages 50 and 51. We pass on to considerations of another character, and first take the liberty of disagreeing with the author upon the legitimacy of his definitions.

Chap. 11 is headed "On Logic, or the Art of Quibbling." If this be true, then it follows, as a first and necessary consequence, that the book containing the assertion is either *illogical* from beginning to end, or else that it is a tissue of *quibbles*—neither of which we are disposed to insinuate, and neither of which would probably be accepted by the author as a correct exposition of the merits of his work. Such a definition of logic must, therefore, be dropped. The *illustrations* of quibbling are some of them amusing, and some of them, again, but irrelevant personalities.—"The meaning of a word may be totally altered by mere change of emphasis, and hence this plan is often used for quibbling." The words from the Bible,—"Saddle me an ass, and they saddled him"—may be totally varied in their signification by a change of emphasis on the word *him*."

"By a variation in punctuation a complete subversion of the meaning of words may be produced. At various times I have met with curious exemplifications of the possible mode of quibbling by a variation in the punctuation, and once a person actually told me that he had never punctuated his letters, that he might make them read in various ways, if that course should be required." We ourselves know an individual who never *dates* his letters, and who is, therefore, under continual suspicion—*he*, probably, has a quibble *in contemplation*.

With regard to Mr. Smee's wholesale castigation of the "Cardinal"—the "Earl of ——"—"Religious Houses"—and the "Popish Priesthood"—we think it rather out of place—better fitted, indeed, for 1780 than for 1851; *or if not so*, at least more suitable to the red-hot atmosphere of Exeter Hall, than to the sober arena of philosophical discussion. The author is unquestionably entitled to think as he pleases upon these matters, and there is little doubt that his convictions concerning the venality of the "Popish Priesthood" are correctly drawn, by contrasting their excesses with the poverty and self-denial of the Established Church; but still, at the same time, the book before us *professes* to treat of the "Process of Thought," and not of its application to religious topics. There are enough already in this fertile quarrel.

Roberts's British Wine Maker and Domestic Brewer. London: Whittaker and Co.—Edinburgh: A. and C. Black.

We have here the result of the experience of a clever and practical gentleman in the art of British wine-making, written in a clear and intelligible style, and conveying instruction on this useful manufacture, which can be carried out by persons of the meanest capacity; but yet Mr. Roberts writes for every one interested in making wines from home-grown fruits, and to such, a perusal of this useful little *brochure* will afford valuable information. By the author's process, and the aid of the saccharometer, which is indispensable (a full description of the use of which he gives), a uniform and successful result can always be depended on. Such a work (and this is the best on the subject) was much required: hitherto British wine-making, even by the most experienced, has been attended too frequently with varied results, the wine being sometimes too sweet, at other times too sour, and frequently spoiled, and all for want of such instructions and rules as are herein contained. Mr. Roberts, in this his fifth edition, gives us the results of his experiments in making wine from the stalks of the rhubarb plant, to resemble Champagne or Hock. These wines bear such a similarity to those imported from France and Germany—to some of which they are infinitely superior—that they can be distinguished by good judges only. Some specimens of Mr. Roberts's manufacture are exhibited in the Crystal Palace. Such wines, and such a work on the art of making them, should occupy a prominent position with every housekeeper.

NEW COMPOSITION.—Mr. A. V. Newton, the mechanical draughtsman, has just patented some improvements in the preparation of materials for the production of a composition or compositions applicable to the manufacture of buttons, knife and razor-handles, inkstands, door-knobs, and other articles where hardness, strength, and durability are required. In manufacturing the compositions which form the subjects of this patent, the inventor employs caoutchouc or gutta percha, or both combined, which he mixes with equal parts of sulphur, and submits to a temperature of 250° to 300° Fahr., for a time varying from two to six hours, and thus obtains a substance possessing characteristics analagous to those of bone, horn, or jet. Carbonate or sulphate of magnesia or lime, or carbonate or sulphate of lime, or calcined French chalk and magnesian earths, together with salt of lead or zinc of any colour, shellac and resin, or other vegetable and mineral substances, are also recommended to be added to the composition in proportions varying from 4 ozs. to 8 ozs. to every pound of gutta percha or caoutchouc. The composition may be moulded into articles of the required forms, and then subjected to heat, and hardened by being enclosed in fine sand or other suitable material. Or, after being rolled into thin sheets, it may be applied to wood or iron, and caused to adhere thereto by heat. Ornaments composed of this composition may be also caused to adhere to elastic bands, by submitting the bands to the vulcanising process while in contact therewith.—*Claims*: 1. The treatment of caoutchouc or of gutta percha, or of caoutchouc and gutta percha combined, in the manner described, for the production of a composition having the qualities above mentioned.—2. The completion of the manufacture of the composition or compositions described, after their application to the manufacture of the articles mentioned in the title.

PRIVILEGES OF THE KING'S SMITH.—One of our historians observes, that immediately preceding the Conquest the art of working in iron and steel had arisen to such a state of improvement, that even the horses of some of the chief knights and barons were covered with steel and iron armour. Artificers who wrought in iron were so highly regarded in those warlike times, that every military officer had his smith, who constantly attended his person, to keep his arms and armour in order. The chief smith was an officer of considerable dignity in the courts of the Anglo-Saxon and Welsh kings, where he enjoyed privileges, and his weregeld was much higher than any other artificer. In the Welsh court the king's smith sat next to the domestic chaplain, and was entitled to a draught of every kind of liquor that was brought into the hall—a privilege which many artificers of his class in our own day will not be disposed to make light of.

INDESTRUCTIBLE INK.—Take shellac four parts by weight, borax two parts, soft water 36 parts. Boil in a close vessel till dissolved, then filter, and take of gum arabic two parts, soft water four parts. Dissolve and mix the two solutions together, and boil for five minutes, as before, occasionally stirring to promote their union. When cold, add a sufficient quantity of finely powdered indigo or lamp-black, according to the colour required; lastly, let it stand for two or three hours, until the coarser powder has subsided, and bottle for use. Use this fluid with a clean pen, and keep it in a glass or earthenware inkstand, as many substances will decompose it in a liquid state. When dry it will resist the action of water, oil, turpentine, alcohol, diluted sulphuric acid, diluted hydrochloric acid, oxalic acid, chlorine, the caustic alkalis, and the alkaline earths. This fluid, made in quantity, will cost about 2s. a gallon.—*Chemical Record.*

Mr. Pepper, the chemical professor to the Royal Polytechnic Institution, has been engaged in delivering a lecture on the metals, and the ores from which they are derived. After giving a general view of the metals and their application, Mr. Pepper observed that we were greatly indebted to the alchemists, who, the lecturer stated, were the true fathers of the science, and, therefore, should not be passed by in silence. They had a further claim on our respect and consideration, because the idea of transmutation had been once more revived, and was now engaging the attention of the highest in the ranks of science. The object of the learned professor's discourse appeared threefold—to show the chemical properties of metals, to demonstrate chemical affinity, and to be an apology for the seeming folly of the alchemist's idea of transmutation.

SALT WELLS IN AMERICA.—Pomeroy (Ohio) has the greatest salt well yet discovered in the United States. The well discharges in an unbroken stream 50 gallons of water per minute. The water will yield a bushel to each 50 gallons—a bushel per minute, or 240 bushels a day. There is water enough, making allowance for waste, for 200 bushels a day. The Pomeroy Company are constructing a furnace 150 feet long, intended for three wells, but which, it is feared, will not be sufficient to use the water of one.

Original Correspondence.

THE IGNEOUS THEORY—A REPLY TO Mr. MUSHET'S ARTICLE: "THE GERMAN SCHOOL OF GEOLOGY."

BY W. L. FARER, ESQ. (OF NEW YORK).

SIR,—Mr. Mushet's questions, in regard to the igneous theory, compel me once more to request you to devote a small portion of your columns to a discussion into which I am the more reluctant to enter, as it is of little practical value. Mr. D. Mushet takes me to be much less practical than I really am—thinking me to be a German. I am, however, an American; and as to theory, I lay as little worth on it as Mr. D. Mushet himself, unless it goes hand in hand with "Practical." Having been challenged, though, to reply to several queries, I feel it my duty to do so, to show Mr. D. Mushet that he views the igneous theory in altogether a false light; and that he will find if, while following the theory up from the beginning, he will for the time divest himself of all unjust prejudices against it, that, according to the laws of Nature now known, every thing he thinks puzzling to me, or unaccountable at all, will explain itself—every influencing item being duly taken into consideration.

According to the theory of "the German School," the earth was, in its primitive state, a spherical mass of vapour; whether or not detached from the sun matters little. This vapour was composed of all the elementary substances contained in and on our globe, isolated or in combination with each other, according to their nature—each present in the same quantity as now, and kept in that state of aggregation by a temperature much higher than any degree of heat we are able to produce by artificial means. The separate constituent—gases—in the mass of vapour passed over into the liquid state, as the decrease of temperature would allow them to remain liquid; and, by the law of gravity, the substances of the highest specific gravity accumulated round the centre of the sphere; therefore, no gases, which on rising in bubbles through a melted mass of granite, would cause the "lid" or surface of the latter to become porous on its passing to the solid state, could possibly be nearer to the centre of the earth than the liquid granite itself. For the same reason—*i. e.*, on account of its comparatively small specific gravity, and because at the temperature reigning during the consolidation of granite, it must be present as vapour. All the water now present on the face of the earth as such occupied a place in the atmosphere as steam.

The temperature continued to diminish gradually; and when a degree was attained sufficiently low for the existence of water as such, sedimentary rocks began to be deposited on the crust of granite formed—the interior being still in a state of fusion as it is to this day, and the crust thickening towards the centre as the temperature fell. This whole theory cannot in the least be compared to a smelting operation, as Mr. Mushet must allow. No combustible was required to heat any matter—the whole process being merely a cooling off of matter already heated.

Now, as to the crystalline structure of granite. Assuming, for sake of argument, that felspar, quartz, and mica were soluble in water, which they are not, they certainly would not be equally soluble. Suppose, then, a body of water, containing these three substances in solution, the least soluble part would crystallise first, and form a homogenous layer of crystals. On these the substance ranking next in solubility would make a crystallising deposit, while the upper stratum would consist entirely of the most soluble portion; and neither of the three layers would contain one single crystal of either of the other substances. But neither water nor any other liquid will dissolve any one of the constituent minerals of granite; they, therefore, could not crystallise out of a liquid at all; and, surely, no one will venture the assertion that any substance whatever will crystallise out of a liquid which does not act on it as a solvent. But suppose even that they were soluble, and neither more soluble than the other; then crystals of felspar, mica, and quartz would form simultaneously; but as the respective specific gravities of the three minerals are 2·5, 2·8 to 3·0, and 2·65, would they not arrange themselves accordingly, and, the mica all settling at the bottom, leave the felspar to form a layer on the surface? Were the laws of gravity, perhaps, annulled during the precipitation of granite from water, for the especial benefit of Mr. Mushet, and other particularly favoured individuals, in order that their theory might be invulnerable? If it was so, let him show me some facts tending to make it probable, and he will find me open to conviction. If it was not so, a granitic rock containing in every depth at every place where it is found, the same proportion of its three constituent minerals could never have had an aqueous origin!

To myself these proofs against the possibility of an aqueous origin of granite are sufficient. They are stated on matter of fact, according to Mr. Mushet's wish. I now will allow myself to ask a question or two, for which, I doubt not, some ingenious answer, which I am very anxious to hear, will be found. Could the small quantity of water contained on the surface of the earth possibly hold a mass of rock equal to the whole solid part of our globe, or nearly so, in solution, even if it were soluble? If not, where is the surplus of water that was necessary to the purpose? It cannot occupy a place under the surface of the earth; for if rocks were deposited from a globe of water, they must, according to the law of gravity, take up their place at the centre of that ball—on the surface of which all the water would be left, excepting such as might find its way into crevices. By what agency were rocks disturbed from their original position, and strata turned topsy-turvy, if not by that of an internal state of fusion? The igneous theory can account for these revolutions. A certain portion of the melted mass at the interior of the earth, on having passed to the solid state, must occupy less space than before, as all bodies are contracted by cooling off; thus vacua were formed; and the filling up of these spaces by a falling in of the masses above, must necessarily cause a great revolution; the greater, the thinner the crust of the earth was at the time. I even believe that earthquakes now are to be attributed to the same cause.

As to the forming of granite by the re-fusion of granite, or its constituent parts mixed in the proportion suggested by analysis, I certainly allow that neither a cube inch nor a cube yard on cooling would again resemble granite, though a cube mile might. So small a quantity as by any known means we are able to fuse at a time, will not afford the melted felspar an opportunity to separate out of a large surrounding medium, and form a crystal discernible to the eye. The whole would appear, on "cooling off," to be a homogeneous mass, though, in reality, it would be a conglomerate of infinitely small crystals—an infinitely fine-grained granite. The greater the bulk of the melted mass, the larger the crystals will be; and in a granite globe, 7000 miles in diameter, artificially re-melted and cooled off, they would attain the size they actually show now on the surface of the earth. In a melted homogeneous mass of such a size, the chemical combinations which have a tendency to form felspar, will collect in the centre of a small sphere, there giving rise to a crystal. The same thing will take place in the small sphere adjoining—the nucleus of which will again be a crystal of felspar. In the same manner crystals of mica will form; and the surplus of silicic acid finding no more bases with which it could enter into combination, must necessarily fill up the interstices between the single crystals as quartz—the whole forming a porphyritic conglomerate, such as granite really is. In a fused state, the specific gravities of the three minerals forming and formed would not differ sufficiently to cause a separation. The heavier crystals would not sink down through a mass of so thick a consistence as melted silicates.

The formation of crystals in the crust surrounding the fiery kernel has, however, at that period been influenced by external, as well as internal powers. They certainly were under an enormous atmospheric pressure, owing to the dense constitution of an atmosphere containing large quantities of vapours of a high specific gravity. Electricity may have played a part we know not of, and so may other forces have done.

The reason why granite shows no properties of a slag is, because in the former the constituents, which may be the same as that of any certain slag, were present in the ratio, and under the influence of powers necessary to form crystals. Basalt is similar to granite as regards its mineral composition. In the former the chemical constituents were present in the ratio, and under circumstances necessary to form crystals of augite or hornblende, labradorite, magnetic iron ore, and different minerals of the zeolitic class. They grouped themselves into a conglomerate of crystals, forming the homogeneous rock, called basalt, in which individual crystals may be detected. I confidently believe that if a mass of basalt, 7000 miles in diameter, had cooled off, we would find it as a conglomerate of as large crystals as those found in granite. The fiery origin of basalt no one can reasonably deny who has seen its occurrence in nature; and no one does deny it. It has evidently been forced up in a melted state through sedimentary rocks—the adjoining parts of which have been acted upon by the heat of the injected mass. Basalt more resembles a slag than granite does; but still it does not show the same curvilinear fracture, nor the same vitreous appearance. Is that a proof that it never was in a state of fusion? Some slags will at times crystallise; and Messrs. Percy and Forbes have shown the crystals formed to be identical with Vesuvian or Gehlenite minerals, occurring in nature, both as to crystalline form and chemical composition. (See the *Chemical Gazette*, vol. 293.)

Mr. Evan Hopkins, in his reply to my former letter, asks how silica, different oxides, and water, chemically combined, can crystallise out of a melted mass? To explain this would lead us too far into chemistry, which I wish entirely to avoid, defending myself on plain practical grounds, which are intelligible even to the uneducated. It will fully suffice, however, to say that as they have done so in basalt, forming the above-mentioned minerals, most of which contain water chemically combined, there is no reason whatever to suppose that they could not do so in granite.

Mr. Mushet might remark to an observation of mine in this letter:—"The transition limestone is decidedly a sedimentary rock. How is it that that is often crystalline, though carbonate of lime is insoluble in water?" I reply that the mass of the rock was originally as little crystalline as chalk is; but that it has been "metamorphosed" (rendered crystalline) by the influence of the intense heat below. The crystals of calcareous spar, however, found in the crevices of the rock, have crystallised from water, as carbonate of lime is not absolutely insoluble in hot water; and the water then covering the rocks must have had a temperature approaching to the boiling point, or some of the lime may have been in solution as bicarbonate, which is very soluble, and which on losing one-half of its carbonic acid will fall down as carbonate of lime, and, perhaps, form crystals, according as other powers may exert an influence at the time of its precipitation.

The two last questions of Mr. Mushet's letter, in the *Mining Journal* of Aug. 23d, remain yet to be responded to. As to the first, I never said that "the secondary or sedimentary formations are the soluble detritus of a great slag," nor does anybody affirm that. As the primitive plutonic rocks are absolutely insoluble, they were only acted upon by the water with which they were in contact, at a period when water could at all exist otherwise than as steam mechanically; but small portions of the rock, suspended, not dissolved, in the water, were carried away and deposited at other places, forming gneiss and mica schists. However, as I am not writing a treatise on geology, but simply answering Mr. Mushet's questions, I see no reason why I should continue to explain the formation of the secondary rocks. It would occupy by far too much space in your valuable Journal, which had much better be devoted to communications of practical value; and, besides, it has nothing to do with the plutonic origin of granite.

As to the last question, I openly confess that I am unable to answer it—nothing, or as little as nothing, as I said in my former letter, being known on the subject that would form a sufficiently strong basis for a theory. Mr. Mushet is decidedly right in saying that a fused mass of metallic sulphurets could not have been injected into the places where single crystals of sulphuret of iron, &c., are found isolated in the surrounding mass; but he is as decidedly wrong in his assertion, "Nature has a way of crystallising metallic sulphurets by aqueous action," because metallic sulphurets are insoluble. The presence of these crystals in beds of coal, &c., has been accounted for by some by a process of sublimation; and this explanation seems to me the most probable. They imagine the sulphurets to have found their way, arising in vapour from below through capillary fissures in the coal to their present resting place, and crystallising on passing to the solid state. On the Hartz Mountains, where lead ores are smelted in blast-furnaces some 15 feet high, crystals of metallic sulphurets, perfect cubes, are always found in the flues and gas chambers through which the products of combustion pass. There they could neither be crystallised from a solution nor from a melted mass; but must evidently owe their existence to a process of sublimation. Why could not the same thing have taken place in the coal formation? The question of Mr. Mushet, however, arises from the erroneous statement in my former letter, that metallic sulphurets especially had crystallised from a melted mass. I had intended to state that instance for the process of sublimation, and probably made the mistake by being obliged to write my letter somewhat in a hurry.

Now, I have answered all Mr. Mushet's questions, and given him plenty of facts, let him say what he can or may against them, and for his own theory in the *Mining Journal*: but I must request him to be less personal in his answer, or he can no longer expect to hear me justify my assertions in public.

THE DEVON COPPER ORE SMELTING COMPANY.

SIR,—It is with great pleasure I observe by the article in your Journal of the 13th inst., that "the Devon Copper Ore Smelting Company" is likely soon to be established. I have been an eye witness to Todd's method of separating mixed ores; the following was the result of a trial, which may be interesting to many of your readers:—3 tons 13 cwts. of refuse ores (which had been exposed at surface many years) at Swanpool Mine, near Falmouth, were removed to Bissoe; they were submitted to Mr. Todd's patent process, when the volatilised lead and zinc were driven off into chambers, and the non-volatile metals tapped out of the bottom of the furnace in a state of regulus. These chambers were opened in my presence about 48 hours after cooling the furnace, when 1 ton 7 cwts. of sulphuret of lead and oxide of zinc were taken from them. I did not see the regulus weighed, but from appearances it was very heavy. I have tried the oxide of zinc, and sulphuret of lead mixed with linseed oil, and a small quantity of Grant's black, on some heavy iron-work, and find it to stand as an anti-corrosive. From Mr. Todd's unwearied exertions in bringing his valuable discovery out, I wish him every success. C. A. G.

Falmouth, Sept. 14.

BRONFLOYD MINE.

SIR,—In your last Journal is inserted a letter from "An (so self-called) Original and *bonâ fide* Shareholder," cautioning parties against purchasing shares in this mine, and intimating that by so doing they will incur a risk. In answer, I have only to observe that persons becoming shareholders will incur no greater risk than in other similar adventures; and that there is nothing in the position of the company which will not bear the strictest investigation, as will be seen, should the writer of the letter, as he states he *may* do, again appear in print. With respect to the present price of the shares, I can state, as a fact within my own knowledge, that many have lately changed hands at prices varying from 1¼ to 1½; and that I myself, although a large holder from the commencement, have never parted with one; but, on the contrary, recently increased my interest by the purchase of 50, at 30s. per share.—THE PURSER OF BRONFLOYD MINE: *Aberystwith, Sept.* 16.

accounts, the ex-purser is not in advance, but in debt to the company about 214*l*. I am not in the least surprised at capitalists being shy in embarking in Cornish mines, although a large field of wealth is yet to be developed therein, and would be obtained by just and legitimate mining, and pay a handsome per centage. I am prepared to answer any further remarks Mr. Simmons may sum up courage to expose to the public eye. It is useless for him to fish for a character from me: if that is his object, I beg most decidedly to refer him and the public to the adventurers connected with West Grambler, Carvannal, Wheal Sally, Wheal Dyke, Mineral Court, or Wheal Violet, as all of them have had an equal test of his qualifications as a theoretical and practical miner, and book and balance-sheet account keeping.

Truro, Sept. 17. A LARGE SHAREHOLDER.

THE COST-BOOK PRINCIPLE.

SIR,—Having recently perused a *brochure* on this subject, I was led to a close examination of one of the points on which some doubts have, as I understand, long prevailed—namely, whether the exemption in the Joint-Stock Companies' Registration Act (7 and 8 Vic., cap. 110, sec. 63), with regard to mining partnership on the "Cost-book Principle," extended to companies formed for mining operations beyond the Stannaries' jurisdiction. My previous impression had been that no such partnership out of the Stannaries would be legal without registration under the Act in question, but a nearer consideration of the words of the statute leads me to a contrary conviction. The section is short, and quite explicit, standing, in this respect, independent of the other provisions:—"Provided always, and be it enacted, that nothing in this Act contained shall extend, or be construed to extend, to *any* partnership formed for the working of mines, minerals, and quarries, *of what nature soever*, on the principle commonly called the Cost-book Principle."

There is no limitation here. Had there been any previous recital that this "principle" was confined to Cornwall, or if the exemption was otherwise restricted by words to show an intent to confine it to the then existing boundary within which it is now assumed that "principle" was exclusively applied to *practice* at the time of the passing of the statute, it might be fairly argued that the exemption was so controlled. But when it is remembered that there were no data before Parliament, to demonstrate the non-existence of cost-book companies elsewhere than within the jurisdiction of the Stannaries, and that the current of legislation from the outset has been to extend especial favour and encouragement to mining, and instead of tramelling its action to remove obstruction, and by every auxiliary available to the Legislature to facilitate its advancement,—then the ordinary rules of interpretation will guide us to infer that the object of the exemption was to sustain all the favourable dispositions by which mining adventures had been promoted. This must be more manifest, on reflecting that it would be an injustice to extra-stannarial mining, to refuse a constitution, which, by implication, was admitted as satisfactory or advantageous to existing adventures on that *principle*. Such would inevitably be the consequence of insisting that the exemption had a special direction to objects not expressed in the enactment, instead of being universal, as I now contend. For if the sense were limited on the assertion that the working of the system was not satisfactory or capable of extension, and that it was the intention to save only existing rights, which constituted the groundwork and *modus operandi* of the provisions affecting other joint-stock associations,—the structure of this exemption, as in other cases, would have been, to except the companies then formed or in progress to a certain date, and bring all subsequent projects under the general machinery of the statute.

No one asserts that this has been done with respect to partnerships in Cornwall, because the language is as general as words can be. In fine, I must say it is a matter of wonder that we should be so blind as to argue that an exemption of a "principle" can be limited, without express words, to its application within a district; when all must acknowledge that *principle*, in such cases, can only be developed by the natural expansion beyond its primitive sphere which success promotes in all doctrinal matters. I conclude, therefore, that the pretence that the Cost-book Principle is a snug Cornish monopoly is a "weak invention" of our keen western speculators, to secure for themselves an advantage over the rest of the mining interest, which this would undoubtedly give them, not only in facilities for the formation of associations, but also in the progress of enterprises, a matter of much greater importance to the adventurers.

There are some companies formed on the Cost-book Principle, that, in consequence of the doubt to which I refer, contemplate registering under the 7 & 8 Vic. c. 110; and as I am not aware of any *eminent* opinion having been taken on the subject, I naturally feel diffident in my own. On that account I intend to have a case submitted to some leading counsel; but as others are as well interested, I have to suggest that there might be more than one opinion taken upon consultation. The expense of so doing would fall lightly on several. If others will co-operate in this, the result would be highly satisfactory, as setting the question once and for ever at rest.—JURISCONSULTUS.

MINE ADVENTURERS' ASSOCIATION.

SIR,—I am happy to find that the suggestions made by me last week, for the general association of the mining interest, have met with the most cordial and uniform response from a large number of persons engaged in and devoted to legitimate mining. In a short time I anticipate the formation of a nucleus, around which will be gathered the representatives of the mineral wealth, not only of this country, but of the whole world, and that we shall witness the foundation of an establishment calculated beyond all precedent to promote, foster, and protect the mining interest. For many years this great national field of enterprise has been either neglected or most inefficiently cultivated; and more recently we have witnessed exhibitions of ignorance and empiricism where knowledge and sound practice should have prevailed. In no other legitimate pursuit with which I am acquainted are men of capital and enterprise so much at the mercy of the ignorant and the designing; and nothing so greatly retards the salutary development of this gigantic interest as the frequent disappointments experienced—the sole result of misplaced confidence. In no other pursuit are the light of science and the authenticated results of practice so much needed as guiding stars to the adventurer as in the prosecution of mining enterprise; in no other pursuit can be witnessed so perfect an abandonment of the principles of science, the warnings of practice, and the promptings of common sense. Information on this subject is often sought from the ignorant, counsel from the interested, and protection from the powerless. The union of mine adventurers will restore mining to its legitimate position; its members will obtain all necessary information, scientific and practical; and the institution may be extended to comprehend every species of instruction within the scope of its objects. I shall be glad to receive further suggestions and communications, either addressed to yourself or to me, at the office of the *Mining Journal*.—THOMAS HARVEY: *London, Sept.* 18.

THE MINING INTEREST.

SIR,—Knowledge being power, suppose some clubs, or committees for general information on mining affairs, were opened by subscription in various large towns, nominating intelligent secretaries, to classify minerals, with maps, patents, journals of home and foreign mining, daily corrected lists of prices, names and addresses of pursers, adventurers, and committees of ditto, Stannary laws and rules of cost-book, and transfers to refer to, with a small well-selected useful library. Let gentlemen purposing to invest, and who are unacquainted with mining, learn and inform themselves what they are about to venture on. If they do not, they not only throw discredit on a great science, but have eventually to pay a high penalty for their ignorance. No agent can give unerring advice, and even a daily share list would be far from correct. Self-application can alone avail. It is no use entirely relying on this or that agent, on your Journal, or the Exchange Committee. There is no help for an ignorant man, with a pocketful of money, who expects he will not be made to pay for the knowledge and information he is deficient in, costing others years of toil, loss, and disappointment. If desirable to add confidence to such a mart of information, institute sworn mining brokers, similar to Government ones. To ensure some guarantee or touchstone of respectability, let them each enter into a bond of 1000*l*., with two sureties of 250*l*. each, and produce a certificate of character from a dozen resident householders. At the same time, there ought to be a check to incorrect reports from mines, sent up to confuse and agitate the market for sinister purposes.—W. A. ASSHECOURT: *Hammersmith, Sept.* 17.

WEST UNITED HILLS MINE.

SIR,—There are some editorial remarks in your last Journal relative to this mine, which are scarcely fair towards the present shareholders, whom you appear in some degree to mix up with the party whose proceedings you so justly condemn. You are, I believe, aware that some of the present adventurers were amongst the greatest sufferers by that party, and their only crime has been that they have used their best exertions to develope the resources of that which they believe to be an excellent mine, if adequately worked. I was one of the sufferers who have had, as you say, "to contribute, and allow the party still to roam at large." My first impression was to seek redress by legal proceedings; but on reflection, and hearing on all hands that the undertaking was really a promising one, being situate in one of the very best mining districts (that of Illogan), I thought it wiser, instead of throwing away money in law, to spend it in trying to make the best of the mine. Some others in a similar position concurred with me, but unfortunately many would do neither one thing nor another. They would neither pay calls nor resign their shares, but seemed resolved to lie by, whilst others worked the mine, and then, if successful, come in and reap the profits. This, of course, was not to be submitted to, and at last, partly by negotiation and partly by proceedings in the Stannary Court, the defaulters have been mostly got rid of. The present shareholders have no connection with the party named by you, further than that, unfortunately for them, several were amongst the sufferers. You express a hope that you will now have *bond fide* mining intelligence from the present parties. You are no doubt aware that Capt. Burgan, of Great Wheal Baddern, is the present superintending captain of the mine, and that you have your intelligence from him, which is not likely to be other than *bond fide*. With regard to the party whose former proceedings you so justly blame, it was needless to represent him as worse than he really was, and yet you appear to have done so. There is not, I believe, any foundation for the statement that "400 shares were transferred; the whole rightly consisting of only 256," if by that statement it is meant to be represented that at any time more shares were transferred than actually existed. I looked over the cost book most carefully at the time, and I could not find that a single share was at any time transferred more than the 256. Indeed, it could not have been done, except with the connivance of the then purser, who was a respectable man, and not likely to lend himself to such a transaction if it had been attempted; but I never heard, and have no reason to believe, that any such attempt ever was made. That the party alluded to sold, from first to last, more than 400 shares, I think likely enough, but it was by buying them up, after having once sold them, and then selling them again—a transaction very different from that which your statement imports. You have also over-stated another matter; the cause against Gustard was not one of a score, but one of five or six. Under the circumstances of this company, I should have hoped that the present adventurers would have had your good will and assistance in their endeavours, rather than that you should have damaged them by a statement, which almost leads to the inference that they were associated, in some way or other, with the party whose acts, at a former period, brought, as you state, so much discredit on the undertaking.

London Sept. 11. A SHAREHOLDER.

WHEAL ZION.

SIR,—I shall feel much obliged by any of your correspondents affording me some information as to the actual state and prospects of Wheal Zion, there being so many extraordinary statements afloat as to the real nature of the discoveries at this mine. It will not do in this case to adopt alone the old adage, "where it is, there it is," but to state the nature and extent of the lodes; for we must recollect that 50,000*l*. is no joke to pay for a comparatively unworked mine, and which I am informed had been previously abandoned by a most respectable and fully competent proprietary.

I am far from an old hand in the mining world, but having become a shareholder in several companies, from which I have every reason to expect I shall derive a satisfactory return for my outlay, I am desirous, previous to embarking in Wheal Zion, to learn what particulars I can—having been dissuaded from taking an interest by more than one broker. FAIR PLAY.

Queen-square, Sept. 12.

PETER TAVY AND MARY TAVY CONSOLS.

SIR,—Much has lately been said in your valuable Journal about legitimate and illegitimate mining; the puffing up mines by false reports to get the shares up, and thus enable the promoters to sell out at a premium, leaving their dupes to make the best of a queer bargain. Without in any way charging Captain Heath with an attempt to mislead the public by his reports on the above adventure, but as he calls it "one of the best mines in Devonshire," I most distinctly inform your readers that the present workings do not bear out the high character given by him. I have been on the mine, where there is now a 12-head stamps erected, and carefully examined the pile of tinstuff at surface—with which I am satisfied; but would certainly advise the adventurers to have the mine thoroughly surveyed and inspected by a competent and impartial agent, before they lay out more capital on the faith of the reports hitherto made. Not only do I recommend this course for their own satisfaction, but I fear, if they continue on the present system, their proceedings will realise the old adage, "proceed in haste, and repent at leisure."

Sept. 10. AN OLD TAVISTOCK TINNER.

WHEAL TONKIN—WHEAL DUCHY.

SIR,—Observing an inquiry, in last week's Journal, respecting the prospects of Wheal Tonkin, I now remark that I have known the district for 40 years, and business having called me there last week, I took the liberty of inspecting it. I found a few pits and two shafts sunk to about the water level, but am not aware what they are looking for, whether tin, copper, or silver; if either of the two former, I thought the lode did not present such appearances as I should wish. I believe the sett to be what was formerly called Wheal Duchy silver lode, which was never known to make copper. If they are working for silver, I did not see any exposed,—but silver is generally kept out of sight of the public. Those inclined to venture had better call, when such specimens they have will be readily shown.—N. ENNOR: *Wiveliscombe, Sept.* 15.

WHEAL ZION—WHEAL ARTHUR.

SIR,—To the many and strange inquiries of late respecting Wheal Zion, I shall forbear entering on, having before given them nearly two months longer to bring it into a state of returning as much ore monthly as the Devon Consols. If any of the Zionites have burned their fingers, they should bear it with patience, having been forewarned.

Capt. Carpenter very kindly offered to accompany me underground at Wheal Arthur, which offer I should certainly have availed myself of, if I had not been unexpectedly called off on other business, and beg to return my thanks to him for his kind offer.—N. ENNOR: *Wiveliscombe, Sept.* 14.

AUSTRALIAN GOLD MINING COMPANY.

SIR,—As some aspersions have got abroad that this scheme is only promoted for the deposit, I beg to inform you and the public that I have concocted the project for no such purpose, but for a very important object, which will soon be apparent. I can also assure you and the public that a regular balance-sheet of the deposit money will be exhibited to the scripholders before any further proceedings are taken, and their opinion will be asked as to the disposal of any balance in hand. CHARLES GURNEY, Sec. *pro tem.*

Great Winchester-street, City, Sept. 19.

THE DOWSING ROD.

SIR,—I send you the following poem, which was written by the celebrated Dean Swift, who gives just as much credit to the dowsing rod as I was ever willing to admit, or the friend of your correspondent, "R. S.," appears to have. If you think it worthy of a place in your valuable Journal, I dare say it will, at least, amuse some of your correspondents.—R. R.: *Tavistock.*

THE VIRTUES OF SID HAMET THE MAGICIAN'S ROD.

The rod was but a harmless wand,
While Moses held it in his hand,
But soon as o'er he laid it down,
'Twas a devouring serpent grown.

Our great magician, Hamet Sid,
Reverses what the prophet did;
His rod was honest English wood,
That, senseless, in a corner stood,
Till metamorphos'd by his grasp,
It grew an all-devouring asp;
Would hiss, and sting, and roll, and twist,
By the meer virtue of his fist:
But when he lay'd it down, as quick
Resumed the figure of a stick.

So to her midnight feasts the hag,
Rides on a broomatick for a nag,
That, rais'd by magick of her breech,
O'er sea and land conveys the witch;
But, with the morning dawn, resumes
The peaceful state of common brooms.

They tell us something strange and odd,
About a certain magick rod,
That, bending down its top, divines
When e'er the soil has golden mines:
Where there are none, it stands erect,
Scorning to show the least respect.
As ready was the wand of Sid
To bend where golden mines were hid;
In Scottish hills found precious ore,
Where none e'er look'd for it before;
And, by a gentle bow, divin'd
How well a Cully's purse was lin'd:
To a forlorn and broken rake,
Stood without motion, like a stake.

The rod of Hermes was renown'd
For charms above and underground;
To sleep could mortal eye-lids fix,
And drive departed souls to Styx.
That rod was just a type of Sid's,
Which, o'er a British Senate's lids,
Could scatter opium full as well,
And drive as many souls to hell.

Sid's rod was slender, white, and tall,
Which oft he used to fish withal:
A place was fast'ned to the hook,
And many score of gugeon's took;
Yet, still so happy was his fate,
He caught his fish, and saved his bait.

Sid's brethren of the cord'ring tribe
A circle with their rod describe,
Which proves a magical redoubt
To keep mischievous spirits out:
Sid's rod was of a larger stride,
And made a circle thrice as wide,
Where spirits throng'd with hideous din,
And he stood there to take them in.
But, when the enchanted rod was broke,
They vanish'd in a stinking smoke.

Achilles's scepter was of wood,
Like Sid's, but nothing near so good;
Tho', down from ancestors divine
Transmitted to the heroes line;
Thence, thro' a long descent of kings,
Came an *heir-loom*, as Homer sings;
Tho' this description looks so big,
That scepter was a sapless Twig:
Which, from the fatal day when first
It left the forest where 'twas nurst,
As Homer tells us o'er and o'er,
Nor leaf, nor fruit, nor blossom bore.
Sid's scepter, full of juice, did shoot
In golden boughs and golden fruit,
And he, the Dragon, never sleeping,
Guarded each fair Hesperian pippin.
No hobby-horse, with gorgeous top,
The dearest in Charles Mather's shop,
Or glittering tinsel of May-fair,
Could with this rod of Sid compare.

Dear Sid, then why wer't thou so mad
To break thy rod like naughty lad;
You should have kiss'd it in your distress,
And then returned it to your mistress,
Or made it a Newmarket twitch,
And not a rod for thy own breech.
For since old Sid has broken this,
His next will be a rod in p—s.

PRICES OF MATERIALS,

As Charged at Stray Park Mines during the following Months:—

DESCRIPTION.		MAY.	JUNE.
Coal, carriage included	*per ton*	13*s* 6*d*	13*s* 6*d*
Timber, balk	*per foot*	0 8	—
„ pine		1 1	—
Iron, common	*per cwt.*	5 6	—
„ faggoted		7 6	—
„ hoop		9 6	—
Chain, second-hand		11 0	—
Lead, white		25 0	—
Nails, patent 4-inch		—	16 6
Lime		15 6	—
Rope		34 0	—
Hemp	*per lb.*	0 4	—
Tallow	*per cwt.*	40 0	—
Oil	*per gall.*	—	3 8
Leather	*per lb.*	1 2	1 0
Candles, London	*per doz.*	4 6	4 6
Powder	*per 100 lbs.*	34 0	33 0
Cans	*per doz.*	—	4 0
Shovels	*per cwt.*	26 0	—
Hilts	*per doz.*	1 4	—
Sieves, iron		—	30 0
„ brass		—	40 0
Safety fuze	*per coil*	0 3	0 3

EXPERIMENTS ON CHARCOAL.—GUNPOWDER.

An important paper, by M. Violette, the Government Commissioner of Gunpowder, on the subject of the preparation of charcoal, has been read to the Paris Academy of Sciences, some of the results of which will interest our readers. M. Violette's operations extended to the manufacture and analysis of the property of different classes of charcoal:—

1. As obtained from one description of wood by the application of vapour of water (steam), at temperatures increasing by 10° of the centigrade from 150° to 450°; and by the application of violent fire from 450° to 1500°, the temperature at which platina is fusible.

2. Charcoal of one and the same wood, prepared in closed vessels, and increasing temperatures from 150° to 450°.

3. Of different sorts of wood used in the powder manufactories in France.

4. Of 75 sorts of wood, indigenous and exotic, prepared by the vapour of water at a set temperature of 300°. The results may be given as follow:

1. It appears that wood, carbonised at different temperatures, yields charcoal in quantity less, according to the ratio of the greater elevation of the temperature of the carbonisation. Hence, at 250°, the product of charcoal will be 50 per cent.; at 200°, 33 per cent.; at 400°, 20 per cent.; diminishing to 15 per cent. above 1500°.

2. That wood exposed to a set temperature gives a proportionate quantity, according to the duration of the process; thus, in two operations at the same temperature of 400°—the one slow, and the other moderately quick—the product in charcoal was double in the former to what it was in the latter.

3. That the carbon normally contained in the wood subdivides itself in the progress of carbonisation into two forms—one remains in the charcoal, and the other passes away with the volatile matters. The proportion varies with the temperatures. At 250°, that remaining behind is double that which escapes. Between 300° and 350° the quantities are equal; but at 1500° the loss is double.

4. That the quantity of carbon in the charcoal is proportionate with the carbonising temperature. At 250° it is 65 per cent.; at 300°, 73; at 400°, 80; at 1500° it amounts to 96 per cent., without, however, producing with the greatest heat, pure carbon.

5. That the charcoal always contains some gas, which it is impossible to expel, even with the highest temperature that can be applied. The amount of gas will vary with the degree of heat—thus, at 250° it is half the weight of the charcoal; at 300°, the third part; at 350°, the fourth part; at 400°, the 20th; and at 1500°, the 100th part.

6. That the carbonisation of wood in closed retorts does not cause so much loss of carbon as by the ordinary means, and produces a charcoal in which the carbon remains almost entire in solid condition. Between 150° and 350° the carbon represents nearly 80 per cent., or about three-fold the ordinary product.

7. That the ordinary method does not produce light (*rouge*) charcoal at 270° in a proportion more than 40 per cent.; whilst in closed retorts, at 180°, there results about 90 per cent., or more than double.

8. That the wood in closed vessels, at a temperature of from 300° to 400°, undergoes a complete fusion, as it may be termed, softening, reuniting, and adhering to the retort. After cooling, it appears to have lost its organic texture, and is presented in a black, lustrous, cellulous, and moulded mass. Perhaps this experiment affords the simplest explanation of the theory respecting the formation of mineral combustibles.

9. That the charcoal prepared in vessels completely closed contains ten times more ashes than what results from the ordinary method; consequently it must be evident that the volatile matters, which escape in distillation, carry with them in a state of mixture or combination a great proportion of the mineral substances, of which the ashes are composed.

10. That the preparation in open caldrons with free circulation of air, as adopted in the powder manufactories, does not produce a homogeneous charcoal, inasmuch as it contains some portions with 75 per cent., and others with 85 per cent., of carbon, the central portion being richer and more completely carbonized than the bottom and surface.

11. That the charcoal prepared in caldrons do not appear the same composition in different manufactories, showing a difference of at least 10 per cent. Consequently the proportion in the powders cannot be, in fact, the same, although ostensibly it is, to which is attributable the difference to be observed in the samples from different establishments. It may be admitted that the black charcoal prepared from open vessels contains an average of from 82 to 84 per cent. of carbon.

12. That the charcoal produced from the distillation of wood in cylinders of cast-iron, as at present practised, presents the same differences, some containing 70 per cent., and others 76 per cent. of carbon. The peculiar charcoal requisite for sporting powder, for which purpose it is thus prepared, should not contain over 70 per cent. at the most.

13. That the charcoal, obtained by the immersion of wood in steam at a high temperature, affords a greater regularity of production. Carbonisation of light quality, with 70 per cent., and dark quality with 80 per cent. of carbon, can be perfectly effected according to the discretion of the operator. This process, well understood and applied, can be made to yield every class of charcoal necessary, and is suited, on account of the homogeneous nature of the products, to supersede the two existing methods, and it will undoubtedly be the most advantageous improvement in the manufacture of powder.

14. That the carbonisation of 72 sorts of wood at 300° has given results varying considerably from 54 to 30 per cent., the quantity and quality of the charcoal depending on the character of the wood.

REDUCTION OF COPPER ORES.—In the Crystal Palace is exhibited the results of Mr. F. Bankart's copper process, as carried on by him at the Red Jacket Works, Briton Ferry, near Swansea. The minerals hitherto operated on in this establishment have been Cuban ores, furnished by the Cobre Mining Company, and which are chiefly composed of copper pyrites, containing from 14 to 25 per cent. of metal. This is first reduced by mechanical means to the state of fine powder, and then exposed in a proper furnace to a low red heat for several hours, with a free access of atmospheric air. By this method of treatment a large proportion of the sulphur present in the ore is driven off in the form of sulphurous acid gas, whilst another portion is converted into sulphuric acid, which combines with the oxide of copper formed during the operation of roasting, and the sulphate of that metal, or blue vitriol, is consequently produced. The ore is next removed in large vats, where it is immersed in boiling water, which by filtering through, it dissolves—carrying away in solution all the sulphate of copper present, and leaving the ore chiefly in the state of an oxide of copper and per-oxide of iron, united with the silicious matrix. This residual ore is now again roasted with a due admixture of the same mineral in the raw state; and the sulphur of the latter, which would otherwise have gone off in the state of sulphurous acid gas, receives, through the agency of the per-oxide of iron in the ore, an additional atom of oxygen, by which it is converted into sulphuric acid; this again acts on a considerable portion of the free oxide of copper present, and, uniting with it, forms sulphate of copper, to be again extracted by solution in boiling water, as before described. These successive operations are continued until almost the whole of the copper has been extracted, and a residue has been obtained consisting almost exclusively of silicia and per-oxide of iron. To obtain the metallic copper from these solutions, pieces of wrought or cast-iron are immersed in the liquid, when, by the action of a well-known chemical affinity, the acid deserts the copper and transfers itself to the iron, with the formation of sulphate of iron—depositing at the same time the copper in a pure state, requiring merely a simple fusion to convert it into cake copper of almost chemical purity. The sulphates of iron and copper resulting from this method are exhibited in the crystalline form among the chemical products in the southern gallery.

STANDARD, PRODUCE, AND PRICE OF COPPER ORES.—The rules adopted are not generally known, and may, therefore, prove interesting. The standard is an arbitrary sum fixed as the presumed price of the fine copper contained in the ore; it usually ranges within a few pounds per cent. of the market price of rough copper. In order to ascertain the price per ton of copper ore, the produce of which by assay is 8¼, and the standard, 94*l.* 8s., multiply the given standard by the produce, thus—94*l.* 8s. multiplied by 8¼ is equal to 836*l.*, which divided by 100*l.*, gives 8*l.* 7s. 2d., as the rate or price per ton, from which has to be deducted 2*l.* 15s. for what are termed returning charges, thus leaving 5*l.* 12s. 2d. as the actual price realised. To determine the standard at which copper ore sells, the price being 5*l.* 17s. 6d. per ton, and the produce 9½, add to the price 5*l.* 17s. 6d., the returning charges of 2*l.* 15s., which will yield a total of 8*l.* 12s. 6d. Then as 9½ is to 8*l.* 12s. 6d. so is 100 to the required standard, or 93*l.* 4s. 10 14-37d. What are termed returning charges is a sum supposed sufficient to reimburse the smelter for coals, labour, &c., in the reduction of the ore—it has been fixed at this sum by long-continued custom, but forms a constant source of complaint with the miner, as being rated too high.

THE SUBMARINE TELEGRAPH.—On Wednesday, the great cable, 24 miles long, and destined, when sunk between Dover and Calais, to form the key for electric communication and correspondence between this country and the European continent, was completed at the works of the Submarine Telegraph Company, Wapping—the last coil being securely circumflexed at about 4 o'clock.

GREAT POLGOOTH MINING COMPANY.

A general meeting of shareholders was held at the London Tavern, Bishopsgate-street, on Wednesday, the 17th inst., to receive the report of the committee for the last three months, and also the letters of Capt. Puckey, the mining agent, and others, respecting the present condition and future prospects of the mine. F. C. BROWN, Esq., in the chair.

After the usual preliminaries, the following report was read by Mr. G. THOMAS:

The committee have pleasure in submitting to this, the first meeting of adventurers in the Great Polgooth Mines, a statement of the accounts from the day on which the present company took possession—viz., from 6th April to the 30th June, a period of two months and 24 days. The balance-sheet shows, up to the 30th June, that the whole capital of 33,000*l.* had been received, with the exception of 245*l.*; 200*l.* has been since paid—thus leaving only 45*l.* now due on account of the last call of 1*l.* per share. Capt. Puckey and the agents have furnished a general report up to the day it is dated (29th Aug.); it gives every information in regard to the past operations and future prospects, and the committee anticipate that its cautious, yet encouraging, tone will afford gratification and confidence to the proprietors.

The prospectus stated, "that the working capital of 5000*l.* would, so far as it might be necessary, be applied to the further developing and extending the underground works, and that all profit over the ordinary working costs would, therefore, at once accrue towards the dividend fund." Carrying this declaration into effect, there has been outlayed in cross-cutting to and opening ground, not affording present results, but having for their object the attainment hereafter of increased and permanently remunerative returns, 685*l.* 17s. 3d.; in altering the dressing-floors, clearing up levels, and attending to the needful repairs required at surface and underground, 200*l.*; and in the preliminary expenses, law charges attendant on the assignment, &c., 133*l.* 4s. 9d. The outlay on this account will henceforward diminish as the repairs and alterations become completed. Some of the exploratory works have reached their points, and with success; and others (the most important) have not arrived at their object, but are in active progress. The mine, however, being so extensive, and the lodes so many, the points which present themselves as likely to lead to highly important discoveries are very numerous in this still shallow mine, notwithstanding the immense quantities of tin she has yielded. The judicious selection of the exploratory works, as made by Capt. Puckey and the agents, on which to employ working capital, is apparent by the great additional value given by these works to the property, which, on the 2d June, Captain Puckey and the agents reported "to be worth at least 10,000*l.* more than when she was purchased by the present company." Besides the eastern section of the mine, from which the produce is now raised, the western part is likely to become valuable also; a lode which had yielded considerable quantities of tin, but which was lost in a former working, has lately been found by us in the 36 fm. level at Coode's; it is highly promising in the opinion of all the captains, and the leader part is 2½ ft. wide, worth 4 cwts. of tin to the 100 sacks; the main part of this lode, it is thought, is yet to be found, and the men are driving south to prove it. The 45 fm. level will, in only a few fms. driving, be under the 36, and if the lode be found good there, this western ground will be, as it were, a new mine, and increase the monthly returns. The committee will now lay before the adventurers No. 1 statement of working costs, sales of ore, and surplus arising between 6th April and 30th June, 1851; No. 2, statement of assets—viz.:

No. 1—showing working costs, sales of ore, and the surplus accruing, from 6th April to 30th June, 1851:—

Mine working costs, April, May, and June, including London expenses					£3425	8 7
Less materials, charged in these costs, but unused to 30th June, and in store					139	5 9
Total three months' costs					£3286	2 10
Tin sales—6th to 30th April	*Tons* 25	5	3	20	£1190	11 11
" May	29	4	2	7	1421	16 10
" June	29	18	2	6	1481	5 2
Total tin sales	84	9	0	5	£4093	13 11
Arsenic sales	16	12	2	0	24	18 9
Cash or acceptances received for					£4118	12 8
Mundic sales, 83 tons, shipped, but cash not yet received					83	0 0
Copper ore ready for sale, say 7 tons, at 5*l.* per ton					35	0 0
Tin (slime, &c.), on floors, &c., from 6th April to 30th June, still undressed and awaiting till winter months give sufficiency of water, say 5 tons, at 30*l.* nett					150	0 0
Total					£4386	12 8

Showing surplus returns over working costs ..... £1100 9 10.

No. 2.—Statement of assets to 30th June, in addition to the mines, plant, and machinery consisting, amongst other valuable items, of seven steam-engines, 10 water-wheels sets of stamps, 250-head, &c., valued at 27,900*l.*—viz.:

Cash and bills receivable at the bankers	£4380 13 2
Cash in hands of Mr. Browne (purser)	138 8 11
Petty cash	10 0 0
Stores paid for, but unused on 30th June	139 5 9
Value of ores raised to 30th June, and the costs paid thereon, but not yet realised, as per statement No. 1	268 0 0
Calls due from adventurers (of which 200*l.* has since been paid)	245 0 0
Total	£5181 7 10

Between 600 and 700 persons are employed on the mines; all possible economy is used in every department, and in the purchase of supplies, and all payments are made in cash. When this undertaking was brought before the public, it was stated that there was no ground for apprehending that any money beyond the 3*l.* per share then called (and since paid) would be required. The recent improvements, future prospects, and the favourable pecuniary position of the company, as exhibited in the above statements of results and assets, all tend to confirm the belief of the committee in the entire correctness of that statement. During the first three months many obstacles naturally arose, consequent on the change of ownership and management, and from the circumstance that the mine and works had for some time previously been suffering from the want of capital. The committee, therefore, look with much confidence to the future, in the conviction that the profit which in that period (notwithstanding those drawbacks) has accrued from a careful mode of working, and the taking away of the tin in a fair miner-like manner, with the view to ensure, as far as practicable, a permanently dividend-paying mine, and not an unfair and temporary large return, will materially increase, and that the considerably enhanced value of the mine, and much improved prospects, as repeated in Capt. Puckey's and the agent's report of the 29th August, will still further advance as the resources and capabilities of the mine become opened out under the judicious and experienced superintendence of Capt. Puckey.

The report of Capt. J. Puckey, R. Hancock, W. Williams, and E. Dunstan, detailing the position and prospects of the mine, was read, and of which we subjoin a pretty full abstract:—

From the unusual distortion of the lodes by slides and elvan courses, producing heaves of mineral of an extraordinary character, rendering the mine one of the first geological studies in the county, the regular keeping up of plans by dialling is indispensable, and a competent party is regularly employed in attending to this department. The shaft plat at Taylor's has been cut in the 110, and cross-cut extended 17 fms., passing through one of the north lodes, and is continuing onwards to cut the south lode, which was productive in the level above. In the 96 about 60 fms. of cross-cuts and driving on the course of three lodes have been performed, besides sinking the necessary winzes, and are still in progress; the most eastern end is now opening on a promising lode, worth 5 cwts. of tin per 100 sacks, and further important discoveries are anticipated. The 84 has been cleared and secured on the north lode, and different levels and cross-cuts extended 57 fms., winzes sank 15 fathoms, 50 fms. of tramroad laid down. A rich deposit of tin having been found, which bids fair to raise the returns to a great extent in a short time, it has been heaved by a slide and elvan course—favourable accompaniments: operations are directed north, where it has no doubt been heaved. The various levels and winzes are all producing tin, and some of the tribute pitches are working at low tributes. The workings in the 76 and 66 have been more limited; the copper branches have yielded a few tons of copper ore, and extensive tribute ground opened, which will work for a considerable time at the present tributes. The 56 and 45, on Brasier's lode, have been driven 150 fms., and the yield of tin from the tribute ground is not likely to vary for some time to come. The 36 has been cleared 130 fms., and the cross-cut from Taylor's shaft extended 17 fms., intersecting one of the north lodes; the end is driving east, with a kindly appearance. The 20 has been driven west from Bawden's 20 fms., and the 10 about 30 fms.; in the former some rich stones of tin have been found, the lode large, but as yet not under the tin ground gone down in the level above. Williams's shaft has been timbered and repaired 25 fathoms. Bunney's 40 and George's shaft, 8 fms. At the western mine, some points of interest were found; and from the extensive wealth before realised from this part, operations are resumed with unabated confidence. The 80 has been extended 17 fms. on St. Martin's lode, and will be continued on to its intersection with Screed's lode: similar intersections have been very productive. In the 45 some good tribute ground has been opened, and tributers are now working therein. In the former working, Screed's lode has been lost after its intersection with the new Gland's lode, near the sump-shaft; the true bearing has been taken, a cross-cut commenced at the 36 at Coode's, and after 12 fms. driving, a lode has been cut, producing tin for 2½ feet wide, worth 4 cwts. of tin per 100 sacks; it is, however, doubtful whether the main part has yet been found: the men are, therefore, driving south to prove this. In the 20, east of Boskeller, there is a lode rich for mundic; four men are raising it at 5s. per ton fit for market, 80 tons of which has been shipped, and another cargo will shortly be ready.

From the foregoing summary of what has been done in five months, with the success already realised, showing at least that a fair average amount of important discovery has attended the operations, much may be expected from our future progress. In a mine possessing the immense resources that Great Polgooth has in the number of lodes, their past productiveness, unvarying character, and geological position, traversed as they are, and diversified with intersections at all points, there will ever be required sound discretion and judgment. Circumstances will continually arise, opening new fields of discovery, so that in regard to the future no definite line can be fairly drawn for the full plan of operations beyond the measures now in progress. Taking a general view thereof, it may be stated with confidence that the value of the mine has considerably increased since it was purchased by the present company, and the prospects are very much improved.

Mr. JOHN BROWNE (of the firm of Coode, Browne, and Co.), in moving the adoption of the report, together with the statement of Captain Puckey, observed that the promises held out in the prospectus of the company had been realised. They had been told that with a working capital of 5000*l.* they would be able to carry the mining operations to a successful issue, and this statement, he was glad to find, had been abundantly verified.

Mr. HESELTINE, sen., seconded the motion, which was carried unanimously.

Mr. JOHNSON moved, and Mr. WITHERS seconded, the first resolution to the effect, that the profit of 1100*l.* 9s. 10d., as shown to have accrued over the working costs to the 30th June last, be payable as a dividend of 2s. per share on and after the 24th inst.

Mr. HESELTINE, sen., proposed, and Mr. MERCIER seconded, that Mr. Mariner and Mr. W. F. Street be appointed auditors, which was unanimously agreed to; and Mr. Samuel Heseltine, jun., was added to the members of the committee.

The business terminated with the usual compliment to the chairman.

A new and extensive tin-plate works have recently been erected at Landore, by the Landore Tin-plate Company. Operations have already commenced, one mill being in full work.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—The 90 is driven east of Field's engine-shaft 4½ fms., and we are driving on the north part of the lode. We expect this will very soon drain the water from the winze sunk 7 ft. under the 80, where the lode is worth 40*l.* per fm. The lode in the 80 east is worth from 90*l.* to 100*l.* per fm.; and from the appearance of the lode in the Boundary winze, sinking under the 70, we may expect a great improvement, the lode in this winze being from 10 to 12 ft. wide, and worth from 180*l.* to 200*l.* per fm. Wyld's shaft is sunk to the 80 fm. level, at which point we have driven south and west 8 ft., where the lode is worth 50*l.* per fm., with every appearance of a rapid improvement. Our average tribute is 1s. 10d. in 1*l.* The mine never looked better.

ANNA MARIA CONSOLS.—The prospects here continue to brighten. We have now opened on the course of the lode upwards of 20 fms.; the lode throughout the drivage produces good saving work, and the ends, both north and south, look well; indeed, I never saw prospects so good at the depth before. The lode in the north end is full 8 ft. wide, with a leader of flookan, 2 ft. of which is interspersed with lead, a sample of which I have sent you by the luggage train.

BAT HOLES.—We have completed the engine-shaft to the 60 fm. level, and are putting in lift to bottom, shaft sollar, &c., and dividing the shaft preparatory to cross-cutting to the Wood lode. The said lode in the 48 north is 3 ft. wide, saving work; south, 6 ft. wide, composed of spar, carrying a leader on the footwall 2 in. wide, of good work for lead ore. The shallow adit end, on California lode, is 1½ ft. wide, barytes, decomposed manganese, and rich lumps of lead ore, opening ground that will set at a moderate tribute. We started our winding-engine on Monday, which went off well, and in all probability will relieve us, by way of keeping the stuff clear from underground. We have weighed in, for August month, 44 tons 6 cwts. 3 qrs. of lead ore, leaving out about 10 tons of old ore.

BEDFORD UNITED.—We have not yet cut the lode in the 115, east of engine-shaft. In this level, east of Andrew's winze, the lode is without alteration; in the west it is 2½ ft. wide, yielding saving work. The lode in the 103 east is 4 ft. wide, worth 4 tons of ore per fm. In Lintern's winze the lode will produce 10 tons of ore per fm. The lode in the 90 east is as last reported. Rundle's winze, in this level, continues worth 6 tons of ore per fathom. No lode taken down in the 80 east, and nothing new to report in the 47 west.

BERRIOW CONSOLS.—Since our last meeting we have driven the cross-cut south about 9 fms. (and are now about 15 fms. from the new lode) to cut other lodes, but have not yet reached any. We thought it advisable to commence sinking the shaft before the winter sets in, which we have done, and it is now about 4 fms. under the adit level; the lode is split in two parts—viz., one part 2 ft. wide composed of peach, mundic, and fluor spar, spotted with black ore; and the other 12 to 14 in. wide, composed principally of mundic and spar. If the water does not increase, we hope to be able to sink 10 fms. without the aid of an engine, and drive east and west to get under where the ore was seen in the adit. We are still driving the cross-cut south of the new lode; we have two or three lodes further south not yet reached, but seen at surface. Since last meeting we have employed two men to drive west in the granite on the course of the main lode, which is about 18 in. wide, composed of peach, spar, and spots of ore; it has improved the last two or three days, and is a very kindly lode. In driving this level 20 fms. further west, we shall have more than 50 fms. backs.

BLACK CRAIG.—We are now making very good progress at this mine, which continues daily to improve, especially as we get the ground opened in depth; the engine, or Welsh's shaft, is now sunk 15 fms. below the 25 fm. level, at which depth we have commenced to drive east and west under the rich orey ground, now working below the 25 fm. level, and where we have three very excellent pitches; one of them produced last month more than 50 tons of ore, equal to, at least, 10 tons per fm. (the lode being wide); this ground is still improving, and has been set this month at 35s. per ton, dressed ready for market. There is a great extent of bearing ground to the west of these pitches, which we are now laying open for working by means of two sumps, which are intended to communicate with the new level now being driven underneath; we now have eight pitches in the back of the 25 fm. level, which are raising a fair quantity of ore; we have four pitches in the 7 fm. level which are doing well also. Last month we raised 100 tons, and I expect we shall raise 120 tons this month; we shipped a cargo of ore to-day, and will have another ready by the early part of next week.

BODMIN WHEAL MARY CONSOLS.—We have just touched the lode in No. 6, east of the cross course, at the 30 fm. level, and have broken stones of ore; but I expect the lode will be disordered for some feet eastward from the present end. In the cross-cut driving south we have cut some branches, from which we have broken some stones of ore; and by examining the strata in the cross-cut south, at the adit, I find the same branches north of No. 7. We have risen some feet in the back of the 30 fm. level, on a lode 4 ft. north of No. 6, which is 18 in. wide, composed of copper ore and jack; this lode has a south underlay, and will fall in No. 6, a little below the 30 fm. level. The tributers are progressing favourably, and the ground in the shaft continues very good.

BRIDFORD CONSOLS.—In our last report we stated that we were driving on an east and west lode, which would intersect some north and south lodes, particularly one we had cleared up and found lead in, a little south of where the intersection would take place. At about the place expected we cut a lode, and have driven on it about 11 fms.; it is 2 ft. big, between two regular walls, and composed of blue flookan and pieces of soft killas, with a great deal of mundic, altogether a very kindly lode for lead: it is fast taking to hill, the back being now above 20 fms., and will increase to 50 fms. before long; we pay only 30s. per fm. for driving. We have found stones of lead at surface north of the above lode, and which apparently come from an east and west lode not yet discovered. Six men are employed driving the adit to intersect the great barytes lode. Since last meeting we have driven 63 fms., 38 of which in solid ground. The distance to the lode is not yet quite driven, but they seem very near, as they meet with stones of barytes and some gossan. Possibly a few days will suffice to reach the lode; we have then to cut through it, and hope on the west side to meet with an east and west lode, and sink the shaft at the junction.

BRYN-ARIAN.—The engine-shaft is commenced sinking under the 24 fm. level, and the ground appears to be favourable. The lode in the 20 fm. level, driving west from Hughes's winze, is 5 ft. wide, not so good as last reported, now yielding 5 cwts. of ore per fm.; the lode in the stopes over this level is 14 ft. wide, producing 1 ton of ore per cubic fm.; the stope in the back of the same level, west of the shaft, is yielding 10 cwts. of ore per fm. The stope in the back of the 10 fm. level about 8 cwts. of ore per fm. Hallett's engine-shaft is down 6 ft. below the 20 fm. level, the lode is large, with some small branches of ore. The 20 fm. level, north from the shaft, has become disordered within the last few days, and at present will not yield more than 3 or 4 cwts. of ore per fathom.

BUTTERDON.—The lode in the 40, south of the shaft, is improved—it now contains a good branch of work for 3 feet high from the bottom of the end, and more ore in it than we have before seen, which is more than we expected, being so near the slide; in the north end, the leader part is not quite so orey as last week, but of just the same size, and very promising. We have sunk a winze 5 feet in the bottom of the 30, north of the shaft (and about 12 fathoms before the present end in the 140), where the lode is worth 6*l.* per fm.; but we are obliged to suspend it in consequence of the water, until it is drained by the level below; we have suspended the 30 end until winzes are put through for ventilation, &c., when the driving can be done cheaper than now. The shaftmen are put to cut plat, and to do other preparatory work for sinking the shaft.

CALSTOCK UNITED.—We have this day cut a good branch of copper ore in the eastern hill. The best part is in the bottom of the level. A pitch has been taken by the men who made the discovery, at 10s. in 1*l.*

CARBONA.—The shaftmen have not made much progress in sinking during the past week, an accident having occurred in the breakage of the windbore in the sinking lift, which is now repaired. The shaft is down 43 fms. 3 ft. The horse of ground, or split in the lode, has disappeared from the western end of the shaft, and the lode is 4 ft. wide, improving for tin, and promises to yield large quantities, but at present rather of a low produce. The lode in the end of the 35 fm. level west is improving; it is 12 in. wide, 6 in. being saving work. The rise from the 35 fm. level is communicated with the winze from the 25, and another pitch set to two men, at 10s. in 1*l.*, west of the rise. In the 25 fm. level end, west of engine-shaft, a large lode has come in with a leader of good work, 4 in. wide. In other parts of the mine no change to report.

CARTHEW CONSOLS.—The lode in the north end, in the 95 fm. level, is rather disordered, but in the south end in this level it is very good; we have laid it bare for about 9 ft., and in pricking into it in different places find it contains a good quantity of ore, both lead and copper; there is a good improvement on the last notice of it. In the 85 fm. level end north we have taken down no lode this week; the appearances are good in passing by it. In the winze sinking in the bottom of this level the lode is yielding good work throughout, as it is also in the stopes in the back. No alteration has taken place in the 75 fm. level end west, but in the south end in this level we have a large and very promising lode, producing lead and copper. The 65 fm. level end south continues to improve; the lode is rich for 1½ foot wide, and is yielding such work throughout as those stones of lead ore I have this week forwarded you as a sample. The tribute department has good appearances, and the mine throughout is progressing in a very satisfactory manner.

CEFN CAM SLATE QUARRY.—I am pleased to inform you that the workings are much more favourable for slate than I had looked for, and I have every reason to think that the next month's setting will be much reduced in price.

CRAIG-Y-MWYN (LEAD).—The wheel and crushers were set to work on Friday, in the presence of a large party of proprietors and their friends. The great course of ore discovered in the parallel lode is now being driven upon, and improves daily, promising ample work for the new wheel, as the drivings on the Sun vein, just discovered, have only just passed the bluestone, and entering on the same bed, where the veins now worked upon are showing good metal, giving safe grounds to rely upon this proving equally productive when fairly driven into the bed of mineral rock. The stones of ore now cutting in it justify this conclusion.

CYFANNEDD FAWR.—We have finished our dams to-day, and have set the sinking on the lead ore to six miners and three labourers.

EAST CROWNDALE.—Since my last, the lode has been taken down in the 58, on south lode, which produced some excellent stones of copper ore; at present it is small, but appears to be splicing again; and I think, ere long, it will be up to its usual width. The ground is favourable for driving, and congenial for copper. The 58, on north lode, produces mundic and copper for about 20 in. wide; in the rise in the back of this level the lode is 12 in. wide, good work.

DEVON BURRA BURRA.—West of the great cross-course three large east and west lodes have been cut, corresponding with those seen on the eastern side of the cross-course. The southern lode has been driven on upwards of 30 fms., and still maintains its size and character. A candle dropped into the water becomes green in 24 hours, and the picks and shovels coated with copper from Saturday night to Monday. The work is proceeding rigorously. Both the mine and the specimens of ores at the offices are attracting unwonted attention and inquiry.

DEVON CONSOLS NORTH.—Morris's shaft is now down 21½ fms., and is greatly increased in size—being full 6 ft. wide from wall to wall, and increasing as we go down. The lode looks well, and is producing good stones of copper ore and plenty of mundic. In the adit level we have cut the flookan of the north lode towards Morris's shaft.

DOLFRWYNOG.—We are going down rapidly with Williams's shaft; at present we are in blue clay, and obliged to timber. At Harvey's driving we have crossed two branches since my last, both carrying stones of yellow copper.

EAST BALLSWIDDEN.—The lode in flat-lode engine-shaft is improved, saving work for tin. In the 10 fm. level, west from Rose engine-shaft, we have a branch of tin 6 in. wide, ground worth 4 cwts. per fathom. On the new lode we have a good lode of tin in the bottom of adit level, for 13 fathoms long. We are getting our stamps round with all speed.

EAST SHARP TOR.—There is no alteration in the lode in the cross-cut in the 40 fm. level, east of Hitchins's shaft, since last reported on; the shaftmen are now engaged dividing and casing the shaft. The ground in the 40, west of shaft, is a little improved since my last, being driven by six men at 4*l.* per fm.—stented until the 22d inst.

EAST WHEAL GEORGE.—The lode in the 23 fm. level, west of shaft, is without alteration; east, it is now 4 ft. wide, composed of spar, mundic, and spots of ore;—a promising-looking lode. The lode in the stopes in the bottom of the 12 fm. level is without alteration, worth about 18*l.* per fm.

EAST WHEAL LEISURE.—The 38 fm. level is expected to cut the lode immediately. The lode in the 27 east is looking very kindly, and yielding 1 ton per fm. The 17 fm. level west is yielding 1 ton per fm., and looking very promising. The 10 fm. level west, on Taylor's lode, has been disordered by cross-courses, but continues to turn out 1 ton per fm., and has laid open a good piece of tribute ground. The sampling on the 10th inst. was 113 tons.

EAST WHEAL RASHLEIGH.—The north and south lode is much larger, and bearing a little more east; it contains beautiful prian and lead, and has slightly improved. The ground is changing to a more favourable stratum for lead—a blue killas. We are now 10 fms. from surface, and about 6 fms. more to drive to get under the shaft.

EAST WHEAL RUSSELL.—We have driven and made good on the course of the lode from the tunnel 9 fms.; the lode is still very promising, and although not containing so much ore maintains its size and character, being 5 ft. wide, and composed of peach, prian, spar, mundic, and ore, with a strong capel on the hanging wall. Its appearance leaves no doubt on my mind of its proving productive, as we progress towards the cross-courses, from the first, or smaller of which, we are distant about 14 fms.—no time will be lost in reaching this point. The engine has arrived at Morwellham, and we shall begin to draw some parts of it to the mine to morrow, Sept. 18.

ESGAIR LLEE.—We have erected a run of flat-rods, and attached them to our crushing-wheel for pumping the water, and find them to answer the purpose exceedingly well; we are now erecting a drawing-machine, to be attached to same, which is of ample power to perform its several duties. The engine-shaft is down 9 fms. 2 ft. below the deep adit; when at 12 fms. we shall cut plat, and cross-cut to the south lode, and extend east and west on the course of it; this will, we have much reason to expect, open some good ground for stoping. By driving a cross-cut north to cut the middle lode, and by extending east on the same, it is likely to drain the caunter lode, as they form a junction about 40 fms. east of the cross-cut. The deep adit is extended about 20 fms. east of Morgan's winze, on the north part of the lode: 4 fms. behind the end a cross-cut has been driven south 3 fms., and intersected the caunter lode east of the slide, and a level extended 4 fms. east on it, and communicated to Jones's winze from the 12; the lode in the end, and for 6 fms. above in the winze, is from 3 to 4 feet wide, and has a very promising appearance, being composed of good gossan, friable quartz, mundic, and carbonate of lime, with a good mixture of ore about 2 feet wide, and will on an average yield about ¼ ton of ore per fm.; the ore ground in this level is for upwards of 50 fms. in length, and judging from its general promising character, with a very kindly and productive lode in the present end, is, I think, quite sufficient to ensure the ultimate success of this concern, for I consider it most judicious to make a prompt and vigorous trial, during which the deep adit east may be continued as far as the ground may prove to be productive; also to stope in the back—the most productive ground—such as may yield 8 or 10 cwts. of ore per fm. We sampled on the 5th inst., 20 tons of lead ore, with instructions that tenders for the same be addressed to Thomas P. Thomas, Esq., 75, Old Broad-street, London, and would be received until the 18th inst., when the several biddings will be declared.

— *Sept.* 15.—The caunter lode in the deep adit, east of Jones's winze, is improved during the past week—being 4 feet wide, and is good work for 2 feet, and looking very promising; the stopes in the back of the same, west of Jones's winze, are looking well, and yielding ¼ ton of ore per fathom. We are proceeding with the sinking of the engine-shaft as fast as possible.

GREAT BRYN CONSOLS.—The trial shaft, on the north lode, is down 4 fms., and the water is getting hard; we have not as yet cut the lode in this shaft, but are very near it. We have cut some branches in the shaft full of mundic and black and grey copper ore. I intend to put four more men in this shaft, to see if I can sink it about 2 fms. more to see the lode. We have still most splendid ground in the deep adit, and the ground appears to be more mineralised, and I do not think we are far from another lode. Since I wrote you last week, we have gone through a very promising lode, carrying mundic and copper of good quality. We have now six lodes in this level, and have not as yet cut either of them. This cross-cut was intended for the purpose of cutting them. We are also getting on well with the shallow adit, and hope to cut the south lode in the course of another fortnight. The walls of the count-house and smiths' shop is up, and will be covered in next week. The road to the mine is getting on as fast as we can spare the men to do it.

GREAT POLGOOTH.—Since our last report, we have taken down about 9 feet of the lode in the 96 fm. level, east of Clarke's; north of the slide it is 3 feet wide, and worth 5 cwts. of tin per 100 sacks; the appearances of this lode are still more favourable, and lead us to expect some rich tin ground in further driving; the cross-cut in the 96 fm. level, driving through the elvan to cut the run of tin ground gone down under the 84, on St. Martin's lode, is progressing as fast as possible, with six men. The lode has not been taken down in the 84 fm. level east since last report; the lode in the same level west, on St. Martin's lode, is 3½ feet wide, and worth 3 cwts. of tin per 100 sacks; in the winze under the 84 the lode is worth 3½ cwts. of tin per 100 sacks; this ground will be shortly let on tribute, to work from the back of the 96 fm. level; a pitch in the back of the 84, on the north lode, is worth 12 cwts. of tin per 100 sacks; the other pitches in this level are producing on an average 3 cwts. of tin per 100 sacks. The lode in the 66 fm. level east is producing work worth 3 cwts. of tin per 100 sacks, and has a very kindly appearance. The lode in the cross-cut in the 36 at Taylor's is large, but at present poor. In the 36, east of Coode's, and the rise in the back of this level, there is a strong promising lode, producing tin. The produce of tin for the months of July and August will be found to be about at the same rate (about 3000*l.*) as the preceding three months; but the deficiency of surface water very much retards the progress of our dressing operations.

GREAT WHEAL BADDERN.—In the 51, east of Buckley's, the lode is kindly, but poor for lead; the stopes in the back are turning out fairly. The 30 end, east of Burgan's shaft, has considerably improved, and ground favourable for driving, the stopes west of the shaft and Tweedale's are looking well. In the 20, on the new lode east of cross-cut, the lode is 2 ft. wide, rich for lead; west it is very kindly in appearance, but poor. We purpose sinking a winze from the bottom of this level on the new lode to the 30, in order to trace and explore the lode in depth. The stopes in the back of the 20 are yielding very satisfactorily. The tin pitch at Sunderland's is producing excellent work. The adit end is still poor. We have set a lead pitch in the bottom of the adit level near Buckley's shaft, one of the old stopes at 6*s.* 8*d.* in 1*l.*; the winze in the bottom of this level, on the caunter lode, is still hard and poor. The dressing and surface operations are going on well. Our mundic is accumulating largely, and several parties are looking to buy; however, I hope you have procured a better market. The mine is rather improved.

HINGSTON DOWNS.—The lode in the 55, east of Doidge's winze, is 5 feet wide—3 ft. of which on the south wall is gossan of the best description, mixed with ore; the remaining 2 ft. is a good course of ore; to the west of the said winze the part driving on is 3½ ft. wide, composed of gossan, spar, and mundic, with good stones of ore intermixed. The lode in Victor's winze is large, and carrying a good leader of ore on the south wall, 9 in. wide. The stopes in the back of the 35 turn out well. The lode in the 45, east of Hitchins's shaft, is 3 ft. wide, producing some good saving work for copper ore. On the south lode the winze sinking below the 35 produces good stones of ore.

HOLMBUSH.—The ground in Hitchins's perpendicular engine-shaft is more favourable than heretofore; in the underlie shaft also, lode about 9 in. wide, and will produce 1½ tons per fm. for the length of the shaft. We shall hang the tackle to-day (Sept. 15). In the 132 east, on the north part of Holmbush lode, the lode is split in three branches; the north one 2 in., middle about 2 in., and south 3 in. wide, and altogether will turn out 1½ tons per fm. In the 132 south, on lead lode, the lode is 8 ft. wide, with a branch of lead ore on the eastern side, which will turn out 3 cwts. per fm., north 5 cwts. of lead per fm. The stopes in the back are 18 in. wide, and looking well. The ground in the winze below the 120, on the lead lode, is rather hard, so that the communication is not yet effected. The lode in the 110, on flap-jack, is unproductive, but ground very favourable for driving. On Saturday we made a communication between the 100 and 110 on this lode, which will be of great benefit. The lode in the 100 is 18 in. wide, with some stones of copper ore. The ground in Wall's engine-shaft is still favourable, being all killas. The 100 west, on flap-jack lode, is 4 ft. wide, composed of mundic, copper, and white iron. The pitches are looking fair, according to the respective tributes.

KIRKCUDBRIGHTSHIRE.—The lode in the 86, west of Stewart's, has declined in size and produce. In the rise over the 74 west the lode is still large, yielding 8 cwts. lead per fm. In the 74, east of Gilpin's, we have a small branch of ore come in on the north side in a kindly lode. We have holed the rise over the 74 west, and the men will now commence driving west. The lode in the 62 west is 2 ft. wide, yielding 8 cwts. of lead per fm. In the 50 west the lode is worth 10 cwts. lead per fm. The 40 west is still in broken ground.

LYDFORD CONSOLS.—At Wheal Mary, the lode in the adit level, south of gossan shaft, is large and kindly, being composed of spar, mundic, and spots of lead. We have commenced driving on the eastern caunter, which is large, being full 2 feet wide, and composed of mundic and spar; the latter is spotted with copper, and promising improvement. We are driving a short cross-cut adit towards the Fanny lode, which will be cut in a day or two, when we shall commence driving on its course; in opening the costean pit nearest the proposed adit, we have seen some lead, although not more than 7 ft. from surface, which is certainly very encouraging, and will no doubt lead to something of more importance below. I have put one man to costean between this and the Wheal Mary engine-shaft, in hopes of finding more lodes, which I think pass through this highly tempting part of the company's property. I have no hesitation in stating it as my opinion, that if these lodes are fairly wrought on they cannot fail to become at a greater depth very remunerative to the adventurers. At Wheal Adventure the lode in the adit level south is for the present small, composed principally of flookan. The lode in the western cross-cut is still in a disordered state. Our surface operations are progressing satisfactorily. We have since last report received the timber from Plymouth, made and hoisted our shears, and to-day (Sept. 17) we shall commence about the capstan. Our launders to the wheel are being got on with, and I hope if not this, the early part of next week, we shall be in a position to commence forking the water.

MERLLYN.—The whim-shaft, sinking below 26 fm. level, is rather better than when last reported, the lode producing about half a ton of lead ore per fm. The winze sinking below the 16, and the rise from the 26 fm. level has been communicated; a cross-cut is now commenced by these men at the 26, to communicate with the engine-shaft, where we have about 3 fms. to drive; whilst doing this the 26 fm. level west will be suspended. The 16 fm. level west is worth 20*l.* per fm. The 15 yard level is looking more promising than for the last 2 or 3 fms., lode producing about one ton of ore per fm.

NORTH WHEAL ROBERT.—In Murchison's engine-shaft we cut a branch of ore in the killas, of a very promising character, dipping towards the lode about 2 feet in a fm., which is a very strong indication: when we reach the lode, we may reasonably expect to cut a good lode of ore. Our adit level is much the same as last reported, except a very large stream of water issuing from the end, which I consider a very favourable change. I will send you all the measurements once a month. Our shaft is sinking very rapidly, and all the other work is going on well.

NORTH WHEAL TRELAWNY.—Since our commencement here, in April last, we have driven 34 fms. on the course of the lode, which has been productive in gossan, flookan, prian, spar, mundic, barytes, and lead, varying in width from 2 to 4 feet, bearing a north easterly direction, at which point we have intersected a north and south lode of strong promising appearance, about 20 in. wide, composed of spar, hornstone, prian, mundic, and silver-lead, on which we have now commenced driving north, in order to its more satisfactory development, after which we intend resuming operations in the end of our former workings, in search of the southern part of our recent discovery, which is apparently being carried eastward in its course. Shortly after which we hope to be able to furnish you with information most aggreable to our wishes.

PENHAUGER.—The horse-whim is erected, and will be immediately set to work, when the sinking of the shaft will be resumed.

RIX HILL.—In the 50 east the lode has improved in character, producing a little tin, but not worthes ving as yet; in the cross-cut north, in this level, the ground is favourable for driving. In the 17, west of engine-shaft, on south lode, the lode is kindly, producing a little saving work; the cross cut south, same level, west of Tregaskiss's pitch, no lode cut as yet, but hope to reach it in the course of next week. The pitches look well.

RUNNAFORD COOMBE.—The lode is looking quite as good as when we first opened it. The tin stuff now raised is from 10 to 13 cwts. of black tin, which I consider to be worth 3*l.* per cwt. This we have raised in the course of three weeks working; if the lode continues as at present we shall have a good pile of tinstuff in the course of another month. I have recently discovered some large rocks of black, grey, and yellow copper ore of the very best quality; this was taken from the eastern end of the 10 fm. level. I shall at once recommend the rods to be fixed to the water-wheel, to draw off the water. I also recommend a cross-cut to be drawn to intersect the main lode, which I consider is now standing through the main part of the mine. I am confident that if the mine is worked in a proper manner it will give all satisfaction; and, as I have ever said, will make a first-rate mine.

SILVER VALLEY AND WHEAL BROTHERS.—During the past week we have broken several bags of excellent work from the rise in the back of the 24 fathom level from Oak shaft; some of it is very rich, and the assays we make show that the branch continues as valuable as we have ever seen it; and what is still more encouraging, there is every prospect of its continuing as productive. An assay from some of the ore broken yesterday made a produce of 2545 ozs. 13 dwts. 8 grs. to a ton of ore. The lode is composed of crystallised native grey and red oxide of silver, with white iron in a beautiful light killas. The north and south branches in our 24 fm. level are come together in the bottom of the end, producing silver and lead ore, which we think will improve as we get forward. The lode in the 14 and 35 fms. levels is looking very promising for silver. From Murray's shaft we are rising work worth dressing from crushed ground to the east of the shaft. We are sorting the ore for dressing.

SOUTH PLAIN WOOD.—We are still sinking Nicholson's shaft below the 10 fm. level; this shaft is now down about 28 fms. from the surface; the present price for sinking is 8*l.* per fm.; the lode is about 2½ ft. wide, and looking more promising than when I wrote you last—having much more spar and very much stronger mundic, with peach and spots of ore. We shall lose no time in sinking this shaft. I have every reason to believe that this will become a productive lode in depth. We are also sinking Gabriel's engine shaft, which is now about 5 fms. below the 15 fm. level. The ground at present is harder than it has been; but I hope it will not continue long; the present price for sinking is 18*l.* per fm. Although the ground is harder, yet I consider it to be more promising, carrying rich spots of yellow ore, mundic, and spar. These droppers are very good indications for copper in depth.

SOUTH TRELAWNY.—We are still cutting in west in the 60 with six men, in the last day or two it has been discharging more water. They have discovered no branch or lode yet on the eastern part of the boundary.

TREBELL CONSOLS.—Since my last report we have sunk on the copper lode 5 fms., but find the water too plentiful for sinking; I have, therefore, began a shaft further north, which is expected to intersect the lode 8 fms. from the surface. In our former workings we were not deep enough to ascertain the underlay of the lode properly. We shall continue to sink by not less than six men as long as the water will allow of our doing so. We shall take out the timber from the former shaft, which will be nearly, if not quite, enough for this shaft; it will go down very fast, if not hindered by water. We hope to sink 8 fms. in so many days; we may, therefore, hope to see the lode 10 fms. below the surface by the end of the next week. More would have been done in the last week could sawyers have been had to cut timber, that for the buildings and engine-shaft requiring nearly the whole of their time, and others could not be had. This difficulty is now removed. The land below (to the north) this shaft for 120 fms. is a regular declivity of about 1 fm. perpendicular to 11 fms. horizontal, consequently about 11 fms. of adit can be brought to this shaft. The land also rises south, the acclivity being much the same for 100 fms. The bringing home an adit hereafter should not be forgotten. The Tretoil Mine lodes also pass through these limits before-named. The soil being alluvial is much against costeaning, and the driving would be very cheap; the timber required would be but little. The stratum, as far as has been seen, is soft decomposed clay-slate, a short distance below the granite range, and very congenial for copper. The engine-shaft in the tin department is about 5 fms. below surface; the ground is more hard than on setting-day, but not hard for granite—price per fathom last setting 7*l.* 7*s.*; there is some water in it, but not much. The stopes are much the same as last reported. The walls of the account-house and smith's and carpenter's shops are nearly finished, and I hope the roof will be put on this week. It should have been done ere now, but the contractors have been very busy lately with their other engagements, and carpenters and masons have been scarce: I hope it will be finished in a short time. We are getting on with the whim as fast as possible.

TRELAWNY.—We have not yet got through the capels of the lode in the 107 fm. level; but there are now some indications of our doing so. In the 92 end north the lode is 3 ft. wide, and worth 8*l.* per fm.; in the south end, same level, the lode is 2½ ft. wide, and worth 8*l.* per fm. In the 82 end north the lode is 3 ft. wide, and worth 15*l.* per fm. The winze in the bottom of this level is suspended on account of so much water. At the north mine, in the 78 end, north of Trehane, the lode is 2 ft. wide, and worth 6*l.* per fm. In the 68 end, north of ditto, the lode is 2 ft. wide, and worth 4*l.* per fm.; in the end in the same level, south of Smith's shaft, the lode is 2 ft. wide, and worth 20*l.* per fm. In the 55 end, north of ditto, the lode is 2 ft. wide, and worth 15*l.* per fm.—this end is now extended as far north as we found the lode productive in the 30 and 40 fm. levels; it appears, therefore, to be a new shoot of lead under the poor ground above, and if so, it will add to our prospects in the north mine. The stopes (working) are looking much as usual.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's, the lode is 20 in. wide, with stones of ore. In the 90 fm. level, west of ditto, the lode is 2½ feet wide, worth 40*l.* per fm.; in the stopes above the 90, west of Terrill's winze, the lode is 3 feet wide, worth 30*l.* per fathom; in the stopes above the 90, east of Terrill's winze, the lode is 2 feet wide, worth 12*l.* per fm.; in the stopes below the 90 fm. level, east of Arthur's winze, the lode is 2½ feet wide, worth 20*l.* per fm. In the 80 fm. level, west of Garden's, we have cut the lode—it is 3 feet wide, with good stones of ore; in the 80 fm. level, east of Christoe's, the lode is 18 in. wide, with stones of ore.—Parent Lode: In the 64 cross-cut, north of Parent shaft, we are driving north to cut Parent lode; in the 64 cross-cut south we are driving south to cut the middle lode.—Middle Lode: At Burgess's shaft below the 13 the lode is 20 inches wide, with stones of ore.

TRELOWETH.—Cole's engine-shaft is sunk 8 fms. 9 in. below the 45 fm. level. The next level we purpose calling the 60. The ground in this shaft continues moderate for sinking, having sunk 3 fms. 3 ft. in the last five weeks' working. The 45 cross-cut is extended 15 fm. 4 ft., which is the distance we calculated upon meeting with the lode, judging by the underlie from the 12 to the 32 fm. level. The lode not having been cut proves the underlie to be less, which we consider a favourable sign in this locality. I am much pleased with the appearance of the killas, or clay-slate, and believe we shall cut the lode productive of mineral. Driven in the past month, 7 fms. 3 ft. 4 in. The 52 is driven west of the cross-cut 12 ft. 6 in.; the ground continues hard, and lode poor. The 32 fm. level is driven east of cross-cut 7 fms. 5 ft.; driven in the past month 4 fms. 3 ft., and set the end to drive for 2*l.* 10*s.* per fm. The lode is 4 ft. wide, producing good stones of copper ore, but not a regular leader or branch. Woodfall's shaft is sunk 20 fms. below the adit; in consequence of having cut a branch, it has produced a little water, which prevents our sinking deeper for the present; and we have set a cross-cut to drive south in the 20 fm. level to see the lode, which is, from calculation, 12 fms. distant at this depth; cost for driving, 2*l.* per fm. Brightman's shaft is sunk 7 fms. 4 ft. below the surface during the past week: they have been engaged timbering this shaft, which has delayed the sinking. From the present look of the ground, we expect to get to the 20 fm. level against next setting day—that is, provided the ground continues favourable for sinking. We are waiting anxiously to see the lode cut in the 45 fm. level, which, without much doubt, will be accomplished before the 20th inst.

TREVILLE (SILVER-LEAD).—The summpen are getting on very well with the engine-shaft, which is now 6 fathoms below the 22 fm. level; the ground fair as sand;—can spade it up with a shovel—a beautiful stratum. The 22 fathom level is everything but a course of ore; there are now two leaders, about 12 inches big—one on the foot, the other on the hanging wall of the lode, about 3½ feet apart; they will apparently come together about 8 or 9 feet under our present level, and I expect they will also come together as they go south. On the whole, our prospects were never better.

TYWARNHAYLE.—The lode in the 100 fathom level, east of Gardiner's shaft, is large and kindly, yielding 1½ ton per fm., but is expensive to drive, costing 21*l.* per fm. The lode in the end of Bennett's shaft is 3½ ft. wide, yielding 4 tons per fathom. In the 90, east of Bennett's shaft, the lode is turning out from 1½ to 2 tons per fm., driving at 12*l.* 12*s.* per fm.; a cross-cut is being driven south in the 90 fathom level to cut the caunter lode. The cross-cut north in the 80 fathom level has not yet intersected Wheal Clarence lode; a winze is to be sunk from the 80 to the 90 fm. level, which is expected to lay open good ore ground. In the 60 fm. level, east of James's shaft, Taylor's lode is yielding 5 tons per fm., and a cross-cut is being driven in the 50 in search for this lode. The next sampling will be about 600 tons.

UNITY CONSOLS.—During the last week our summpen have been engaged taking up the 10-inch lifts and fixing 17-inch lifts from the 40 to the 60 fm. level. We have not yet agreed for price to sink under the 60, but hope to do so in a day or two, when the sinking below the 60 shall be carried on with the utmost dispatch. In the 60 fm. level east the lode is 4 feet wide, producing a small portion of copper ore, and rich work for tin; in the 60 fm. level west the lode is 2 feet wide, and although it has much fallen off for copper, it yields very rich work for tin; in the rise in the back of the 60 west the lode is 2½ ft. wide, poor for copper, but worth 20*l.* per fm. for tin. In the rise in the back of the 50 fathom level west the lode is 1 ft. wide, worth 5*l.* per fm. for tin. In the 30 fm. level, east of Buckley's, the lode is 3 ft. wide, not quite so good as last reported, but now worth about 10*l.* per fm. for tin. At Lambe, in the 40 fm. level, east of Kenworthy's engine-shaft, the lode is only 6 in. wide, and rather fallen off in value since last week's report. In the winze under the 30 fathom level, east of Tweedale's shaft, the lode is 6 in. wide, worth for copper ore 3*l.* per fm. Hampton's lode, in the 30 fm. level going west, is 2 feet wide, containing mundic, flookan, spar, and rich spots of copper ore, presenting one of the most promising lodes for a course of ore that I ever saw in Unity or any other mine. I am happy to report the arrival of the castings for the stamps from the foundry, and I will endeavour to get them in full work in a day or two; and I hope to make a good return of tin in a month or six weeks from this time, and further hope I shall be able to get a parcel of copper ore ready by the next western mine sampling. We are proceeding rapidly with the erection of a burning house, which shall be got ready to take the first lot of tin from the stamps, and hope by next week to be enabled to report progress thereon.

WEST BEAM.—The engine-house is up and covered in—the mason work for stamps is nearly completed, and the stack in progress. The engine shaft is sunk 12½ fathoms, timbered and completed; a plat is cut at this level, and we have driven through the lode; we are now driving east and west on the course of the lode, and as long as we can possibly keep the water under with our horse-whim we shall continue opening upon this lode; this advantage will enable us to drop the lift of pumps at once to this level, and within a few hours after our engine commences pumping, the men will be at work on good tin ground.

WEST GOGINAN.—The lode in the engine-shaft, sinking under the 15 fm. level, is 5 to 6 ft. wide, composed principally of killas, jack, mixed with spar, and spotted with lead ore. We expect to be down deep enough to commence driving the cross-cut in the 30 fm. level in three or four weeks; the water at present is very little. The lode in the adit level, driving east from the old shaft, is 5 ft. wide, with a promising appearance.

WEST UNITED HILLS.—We are quite ready with the engine-house to receive the engine. The buildings are complete, and matters generally are looking well. The engine-shaft is going down beautifully, and free of water. I think we shall be able to sink even 12 or 14 fms. below the adit level without the engine. The ground strongly indicates good, and should we, on cutting the lodes in the engine-shaft, find them rich, the mine would be considered invaluable.

WEST WHEAL JEWEL.—In the 85 fm. level, west of Williams's cross-course, on Wheal Jewel lode, lode not taken down in the past week. The 70 fm. level, west of Hodges's cross-course, on the new south lode, is producing stones of ore. No lode taken down on Tolcarne tin lode in the past week. Quarry shaft, sinking below the 42 fm. level, on Tolcarne tin lode, is worth 5*l.* per fm. The stopes in the bottom of the 12 fm. level, west of Tregoning's winze, on the same lode, are worth 13*l.* per fm. The stopes in the bottom of the shallow adit, west of Tregoning's shaft, on the same lode, are worth 13*l.* per fm.; these stopes are working on tribute.

WEST WHEAL TOWAN.—The ground in the 40 fathom level cross-cut, north of Taylor's shaft, is favourable for driving; and it is expected it will cut Middlework's lode about the end of the present month. The 20 cross-cut continues to meet with branches; the last one cut was 1 foot wide, of a promising character, and producing good stones of copper ore. The lode in the winze sinking from the cliff on Wheal Towan lode continues to look kindly, turning out good stones of ore. The lode in the 15 fm. level, west of Caroline's shaft, is worth 12*l.* per fm., and this ground may be stoped for 2*l.* per fm. The new shaft is completed to the adit at Korriack point.

WHEAL ANNA CONSOLS.—Since my last, some heavy parts of the machinery have been brought on the mine, and the boiler is to be here in a few days. Mr. West (the engineer) has engaged to expedite the completion as quickly as possible. The surface work is also in a state of forwardness.

WHEAL AUGUSTA.—In the winze under the 18 fathom level we have a large lode, with rich stones of tin. In the 18 fm. level west the lode is 20 in. wide, saving work for tin. On the new south lode we are looking well. We sold a parcel of tin this week at 52*l.* 10*s.* per ton.

WHEAL CATHERINE.—The flap-jack engine works well; the shaft is now about 4½ fms. deep, which is being sunk by nine men, at 8*l.* per fathom; the lode is large, composed of prian, mundic, spar, and good stones of lead. The stratum is beautiful killas, and very congenial for mineral. We have cut a pretty deal of water, and shall put in a larger lift, our present one not being large enough to go very deep. We have let the raising and carriage of stone for the count-house, &c.—in fact, we have let all the work we can. The masons are going on with the building satisfactorily.

WHEAL EDWARD (CALSTOCK).—Since my last, we have been confined to shoding and tracing the lodes from the west end to the east end of the sett. Up to the 4th inst., I have set to drive east of Moor's shaft, on the course of the lode, where I find the lode to be very regular, about 3 ft. wide, 1½ ft. of which is very good work for copper; the remainder part is composed of beautiful gossan, prian, mundic, quartz, &c., altogether very congenial for copper; in fact, I have no doubt but that we shall have a rich deposit of copper ore, as the ground in this neighbourhood appears to be all mineralised. In our shoding, we have opened on one lode, and expect to cut another every day; the one we have cut shows a good back, composed of gossan, peach, prian, mundic, spar, &c., altogether a very kindly lode; the lode we are expecting to cut we consider to be a good one. About 60 fms. east of this, at the shallow depth of 20 fms. only, they are raising large quantities of rich ore.

WHEAL FANNY.—Our cross-cut is holed to the new shaft, and the men are now engaged in cutting a plat, and, as soon as it is completed we shall resume sinking the shaft. The old engine-shaft we have cleared about 10 fms., which is large—about 12 ft. by 6 ft. Some splendid stones of lead ore have been taken from the stuff drawing from the shaft, which I have been told came from the adit level, and also that a large branch of lead ore is now in that level. We must, however, prove that for ourselves. I am also told that the shaft has not taken the lode, nor do I think it has, judging from the present underlie of the lode in the adit level, and the distance it is from the shaft.

WHEAL FORTUNE.—Agreeably to your request, I have inspected this mine, and find it situated on the banks of the River Tamar—King's Mill Quay being within the sett, which is a great advantage for shipping and other purposes. This sett is granted by the Duke of Cornwall for 21 years, 20 of which are unexpired, at 1-15th dues. In going underground, I find an adit level driven 29 fms.; this level intersected the lode 12 fms. in, from whence it is driven on the course of the south Hooe lode, and in the present end the lode is about 3½ ft. wide, composed of prian, soft spar, and flookan, and impregnated throughout with silver-lead, of a good quality. A shaft is also sunk under the adit about 4½ fms., where the lode is 14 in. wide, composed of flookan, white prian, and mundic, with beautiful cubes of silver-lead, and, from present appearances, I have not the least doubt of the mine turning out an abundance of lead ores in depth—consequently I should advise your continuing to sink the shaft by six men, and, at the same time, to drive the adit south, to intersect the great copper lode; but as the water was in on the back of this lode, I cannot say as to its bearing and character; it is said to be 8 ft. wide, carrying good stones of ore. Still I cannot conclude without adding that this sett is worthy of a fair trial, and if so tried, I feel convinced it will amply repay the adventurers.

WHEAL HAMLYN.—Since my last report we have holed to the winze from the Quarry shaft, and have driven 2 fms. west of it, the lode still looking very promising; we intend to drive on its course about 8 fms. further, where we expect to meet with the east and west lode. We have driven west in the level above from the winze 5 fms., and the lode looking equally well; we have about 6 fms. further before we cut the east and west lode, when we intend to sink a winze in the bottom of this level on the course of the east and west lode, and hole to the level below, to have a ventilation for air, &c. We intended at first, when we had holed the winze, to drive north towards the adit end, but as the lode there appears to be getting softer, we think it best to go on as we are for this month, particularly as its almost on the close. I have one man costeaning on the back of the east and west lode we are driving to cut, and find it to be looking very promising.

WHEAL LANGFORD AND BARING UNITED.—We are progressing with the erection of the engine as fast as possible. Since my last we have broken about 5 cwts. of silver ore. There is no alteration at Wheal Baring since my report of last week. I am anxious to get the engine at work, that we may resume sinking the shaft.

WHEAL MAY.—We have taken up from the bottom of the engine-shaft as good stones of ore as you have in your office, which I sent you a few weeks ago. I never saw the lode look so well as now since we commenced the shaft. The engine works well, and is keeping the mine quite dry. There is no doubt but that we shall a good mine.

WHEAL PENHALE.—The south winze is now sunk from 3 to 4 fathoms below the 40 fm. level; the ground in it is easy, much easier than we have found it above, and the lode is very rich in lead and copper—principally of the former; specimens of which I have forwarded to your office, and which, I doubt not, will be pronounced even yet richer and better stones of ore than those lying at the office here, by those adventurers who have seen both; and that we have great quantities lying under our feet in this level there can be no question; but the water in this winze is becoming very plentiful; indeed, so much so, that it is with the greatest difficulty that we can keep it sufficiently low to enable the men to work therein. We have found the lode in the south side of the slide, and though we have not found it very rich, yet its character and appearances are very good indeed; however, as the old lode is not above 5 fms. apart from us here, at a point about 25 fms. south of where we last saw it in this level, we have, for the present, suspended this (the 40 end south), and have put the men to cross-cut to the old lode, thinking it very probable that we shall find it richer at a parallel with the riches of the counter, than we have to the north of it. In driving north from the cross-cut at this level we find the lode divided in sundry branches, all of which producing good stones of lead. The tribute department shows tolerably well; but in viewing the whole circumstances of the mine no one can be otherwise than well pleased.

WHEAL TREMAYNE.—At the Boundary engine-shaft, sinking under the 73 fm. level, the branches are slightly improved, worth 16*l.* per fm.; the 73 east is worth 5*l.* per fm.; and east on Allen's branch worth 9*l.*, west 10*l.* per fm. In the 63 east it is worth 14*l.*; west, 8*l.*; east on engine lode, 6*l.* per fm.; west, 7*l.*; winze sinking under westward, 6*l.* per fm.; another on the south branch west, 6*l.* The lode in the winze sinking under the 53, on Allen's branch, is worth 20*l.* per fathom. At Painter's flat-rod shaft, 50 fms. west of whim-shaft, the lode is 10 in. wide, worth 4*l.* per fm. The stopes in the back of the 40 west are worth 7*l.* per fm. At Alexander's shaft, on Wallis's lode, in the 60 east, the lode is worth 8*l.* per fm. At Ingram's, the cross-cut south in the 12 has intersected a branch, which we do not consider the main part of the lode; we are still cross-cutting further south. At Arthur's shaft, on the south lode, in the 20 west, the lode is 2 ft. wide, producing tribute ground. At Madron's shaft, on south lode, in in the 70 cross-cut south, no lode intersected, though we have cut several small branches and floors of spar, producing good work for tin and copper; this we consider a good indication. Since our last we have commenced sinking a new engine-shaft from surface, 40 fms. west of Madron's, on the south lode, calculated to take the lode in the 70; it is down 6 fms. in clean killas ground. We are also rising in the back of the 70 and 60 against the same shaft; this shaft is going down in a run of tin ground 100 fms. in length. Our tribute department continues to look well.

WHEAL TREWANE.—We have found the lode to the south of the new shaft; it is 2 feet wide—1 foot of which consists of splendid silver-lead gossan, and the other of real good prian, with fine stones of silver-lead, and the ground is a soft blue killas. The men are now driving south on the course of this lode.

WHEAL WILLIAMS.—The water is drained to the bottom, or 30 fathom level, on the south lode engine-shaft, and the men are now making good progress, considering the difficult nature of the work, in cutting down the same below the 20 fathom level. The lode standing in the end of the shaft, so far as cut down, is from 3 to 4 ft. wide, of a very promising character, containing a light capel, mundic, peach, quartz, gossan, and rich quality ore.

YEOLAND CONSOLS.—We are progressing favourably: the shaft on the north lode is down to the 44, and the stuff now raising is of excellent quality. We shall shortly begin to drive under the leader left in the bottom of the 32 east, reported as worth from 25*l.* to 30*l.* per fathom. On Roborough Down we have set the shaft to sink, and a piece of old ground on tribute; and the stuff now coming up is of very superior quality, returning a very good profit; the lode is of a beautiful character and comes away easy; it carries on the back a most extraordinary gossan, and from the highly favourable nature of the soft blue killas, and its approximation to the granite, our confidence is staunch in future success. The new engine will be ready in about 10 days. All the reserved shares are sold. This will be a considerable pecuniary assistance to us, in addition to closing the share list, and in about a fortnight or three weeks we shall be in a full course of healthy working. The adit level is being prosecuted to intersect the new south lode at a depth of about 24 fms. A large quantity of tin was returned from a shaft about 14 fms. deep, and on opening of a few fathoms on this lode, and this adit will give a large quantity of good backs. We shall at once commence a cross-cut from the shaft in the 44 to the copper lode seen in the north adit, and from which such very good stones of copper were raised. The ground in both places is easy, and the objects contemplated will be attained at a small cost.

ALLT-Y-CRIB.—I wrote you last week to say that the water is out. We have now dialled the mine exactly, and compared the direction of the adit with the 15 fm. level; and the result of our inquiry is that we find the main body of the lode to the south of the level. We have commenced two cross-cuts—one to the east, and one to the west of the engine-shaft. In the eastern cross-cut we have a splendid lode, with stones of lead and zinc ore; and we expect we are only a few feet from the body of ore seen in the adit. I have not the slightest fear of finding good courses of ore in both these cross-cuts, if the old men have not been so low; and I should hardly think it possible that they could draw the ore and stuff by hand so low as this from the Chapel level—a depth of 30 fms. The lode must have been very rich if they were enabled to do so, and it paid them for their labour. The ore ground is looking well all through the mine. Our sales this month are 35 tons, at 10*l.* 15*s.*

CAEGYNON.—The levels in this mine are opening out rich ore-ground; but we are still short of water, and cannot get our ore into the market.

CWM DAREN.—The machinery of the mine is gone to work, and is working most satisfactorily, and in a month we shall have a parcel of ore ready for sale. The 10 fm. levels, extending eastward and westward of the engine-shaft, are both opening good quantities of silver-lead and copper ore ground.

COURT GRANGE.—The bottom level eastward in this mine has now unwatered the long course of silver-lead ore between the engine and Oliver's shaft—a part

of the mine from which considerable returns will be drawn or raised in future. The ore ground in Llettynhen Mine is also lengthening. This property is improving both with respect to its present returns and its permanent character; and the profits in future will be declared in dividends as the Pen-y-Cefn field of machinery is complete.

FOREIGN MINES.

LINARES MINES.—The following has been received from Capt. Curry:—

Pozo Ancho, Sept. 7.—San Thomas engine-shaft is sunk 6 feet below the 55 fm. level, and its progress may be considered satisfactory. The 55 fm. level, west of this shaft, is opening on a good lode, yielding 3 tons of lead per fathom, ground moderate for driving. The stopes in the eastern forebreast of this level are still producing fair quantities of lead, lode worth 5 to 6 tons per fm.: a new pitch has been set in the back of this level, for the present, at a tribute of 1¼ reals per arroba, dressing included; this place is opening well, and bids fair to produce considerable quantities of lead. The 55 fm. level, east of Shaw's shaft, is opening on a moderately productive lode, yielding 2 tons of lead per fm., and leaving good tribute ground in the back and bottom. The same level, west of San Juan shaft, is passing through a large lode, but at present unproductive. We have commenced to sink a winze in the bottom of this level, about 24 fms. west of San Juan shaft, to be called Santa Maria; here the lode is large and easy for sinking, composed of a fine gossan, friable spar, and soft clay, with a little mixture of lead, but of little consequence to value. Shaw's shaft has now nearly reached the 55 fm. level; when this shall have been accomplished, we purpose opening a level east and west from this shaft, in order to lay open ground in this direction with all possible speed. Our 51 fathom level, east of Shaw's shaft, is still proceeding through the old men's workings, and has now reached nearly 60 fms. east of the above shaft. No arches have been met with during the past month, all the lode being carefully taken away, and the walls bearing testimony of a fine lode having once been between them. We are clearing up some of the workings from the surface of the men of old, to the east of Shaw's shaft, from 80 to 90 fathoms. We have reached a depth of 13 fms.; here, as in the 31 fm. level, the lode is all removed, and must have been a productive one. After making a communication here with our 31 fm. level, we shall be in a position to avail ourselves of this, as we fully expect productive ground in the bottom of the level. San Juan shaft is now about 3 varas below the 45, ground rather hard, progress slow. Our tribute department still continues to look well. We have 18 pitches at work in the different levels, at an average tribute, according to estimate of raisings, of 30s. 6d. per ton, dressing included. Our raisings for August exceeded 200 tons, and according to our calculations we expect somewhere about 240 tons for the current month.

Lead ore weighed in to Sept. 7, 55 tons: total in stock, 427 tons. Pig-lead smelted, 24 tons 6 cwts.: total in stock, 346 tons 2 cwts.

NATIONAL BRAZILIAN MINING ASSOCIATION:—

Cocaes, July 29.—Having plenty of ground for additional borers, and a lode worth working, I have been looking out for more of them, if possible, to keep both stamps fully occupied: as yet I have only got two pair, but am promised more soon. Thus, augmented with first-class boys, I believe the produce will immediately rise to a very remunerative extent—that is, supposing the lode to retain its present standard of richness. The produce has been somewhat less of late, owing to the two mallets being idle from sickness, and to the upper stamps being at a stand for two washings. Since the stamps have again commenced, it has gone up. The number of mallets will be equal to what it was during the latter part of the time of Capt. Bate, and Capt. Guy expects the next washing to be as good as usual. The excavation towards the sink T is very promising and the samples are more productive than last reported.

Cuiaba, July 26.—We succeeded in opening to the old excavation on the 22nd inst., and shall very soon be able to communicate this with Hartley's level above, or the eastern part of Le Page's stopes, after which we shall open stopes from pass No. 5, in Hitchens's level, up to the new stopes, taking up every stope in succession, and expect to complete it in about six weeks, when we shall be able to employ double the number we now have. In Hitchens's level we opened 3 fms. 1 ft. in all. I do not see the necessity of opening any further west at this level just now, as we know the size of the lode in the new stopes, which is further west to measure 6 fms. from the north wall to the south wall of the lode; consequently I recommend to sink a winze from Hitchens's level down to the depth of the shallow adit—say, 7 fms. west of the slide, in the most favourable floor of ground for sinking.

Cocaes produce from 29th June to 29th July	*Mks.*	17	4	5	55	
Cuiaba " 27th " 26th "		5	6	7	24	
Total	*Mks.*	23	3	5	7	

THE WORTHING MINING COMPANY:—

May 19.—In the north and south end from the water shaft there has been nothing done for the last month, in consequence of the water being in, which was partly owing to an increase of water coming out of the lode, and partly to the horses being knocked up; but now having fresh horses, we hope soon to be enabled to recommence driving the said levels, and part of the hands have been employed in costeaning a lode running a little to the east of the engine-shaft, and another lode on the brow of the hill, over where a crosscut has been driven in a few fathoms from the creek north of the smiths' shop; the former lode is composed of spar and carbonate of lime, and the latter lode of spar and gossan, about 3 ft. wide; the rest of the hands have been employed with the engineer, and attending to the whim-shaft. The Gully south end is being driven 3 fms. 5 ft. 8 in., and is now worth 16*l.* per fathom—the lode looks much the same as it did last month.

From Van Diemen's Land we learn that the shaft sunk at New Town, on Captain Spottiswoode's property, is 90 feet deep, and six tons of coal per day have been hoisted by manual labour during the last week. Arrangements are in progress to bring a gin into operation, when 60 tons per day can be brought up. Another shaft is to be sunk within a short distance for ventilating the mine. The coal burns with a slight flame, emits a strong heat without any smoke, and is not bituminous. His Excellency the Lieutenant-Governor has visited the works, and has expressed his intention of affording assistance. The price of coal at the pit's mouth is 6s. 6d., and they are delivered at 8s per ton. Port Arthur coals are 15s. per ton. The new coal does not fly. The seam is 4½ feet thick.

We are at length advised of the positive ascertainment of abundant deposits of tin ore on the Island of Billiton, the working of which has been conceded to Prince Henry of Netherlands and others; this may ultimately have a considerable permanent influence on the trade in tin, by throwing into the market large additional supplies, and active measures are in progress for making a commencement of mining operations. The steamer *Etna* lately proceeded to Banka and Billiton in order to convey to the last-mentioned island the mining engineer, C. de Groot, charged with an investigation of the mineral resources of that place: this gentleman, besides the persons attached to his staff, is accompanied by Mr. Loudon, as agent of Prince Henry, and the Baron Van Scroooskerken, petitioners for the privilege of working the tin mines there. On the day of their arrival at Billiton the churchyard of the company, lying to the north-east of the fort, was pointed out by a native as consisting of tin ground. An examination instituted in the vicinity of the churchyard confirmed this information, and the day after landing they had procured tin ore. M. de Groot has since employed himself in examining the Valley of Cherugiep, where already a number of wells and borings have been made, in all of which tin has been found. The first place chosen as fit for operations is at some miles distance east of the fort, and it is intended to request Government to allow them to open a trial mine at this place at their own cost. Thus far the result of the examination has been most favourable, and it appears that the probability of the success of tin mining in Billiton can no longer be doubted.

STEAM-ENGINES.—Mr. E. Galloway, C.E., has just specified his new patent for improvements in steam-engines. They consist in arranging machinery between the piston of a double-acting steam-engine and its load, in such manner that the varying effort of the steam, when working expansively, may be caused to operate with a comparatively uniform effect on the load, and in such manner that, both during the up and down stroke, the load shall be moved through a greater space for a given extent of motion of the piston when acted on by the greatest pressure of steam, than it is moved through for a similar extent of motion of the piston when acted on by the decreasing effort of the expanding steam. The patentee does not confine himself to any particular arrangement of mechanism to effect this object, but he claims—"The employment of mechanical means interposed between the piston and the load of a double-acting steam-engine, to compensate for the decreasing effort of expanding steam, and thus, as nearly as may be, to obtain a practical uniformity of effort in respect to the load."

IMPROVEMENTS IN THE MANUFACTURE OF CAST-STEEL.—Messrs. Blake and Parkin, of Sheffield, manufacture core-annealed cast-steel, for taps, piston rods, steel cylinders, rollers and dies for calico engravers, steel tubing, machine bolts, shafting, spindle mandrils, drills, &c, warranted to harden without breaking, and to be externally of the hardest temper required, though internally retaining a malleability. They also manufacture patent tempered cast-steel, in bars, sheets, slabs, or strips, externally of hard temper, to any depth required from the surface, and of soft nature on the back or reverse side; or soft in the centre of the thickness of the bar or sheet, and hard on either or both sides; being an immense improvement, well adapted for external friction or pressure, and the only method of manufacturing a first-rate machine knife or cutter, of any description. We expect shortly to publish a descriptive paper of the improved processes of Messrs. Blake and Parkin.

CORNISH STEAM-ENGINES.

The number of pumping-engines reported for the month of Aug. is 24—the quantity of coals consumed being 1853 tons, lifting, in the aggregate, 16,000,000 tons of water 10 fathoms high—the average duty of the whole is, therefore, 50,000,000 lbs. lifted 1 foot hig by the consumption of a bushel of coal.—The following have exceeded the average:—

Mines.	Engines.	Length of stroke	Load in pounds.	Load per sq. inch on plat.	Strokes per min.	Consump. of coal in bus.	Millions lifted 1 foot by consump. of 1 bush. coal	Lifted 1 foot by 1c. of coal.
Great Work..	Lead's 60-in...	9·0	55,343	15·2	7·2	1790	62·9	75
Wh. Treasury	40-inch	9·0	30,635	21·7	5·8	1040	56·0	67
E. Wh. Crofty	Trevenson's 80	10·33	82,333	12·2	4·6	2244	59·7	71
Carn Brea....	Sims's 50 & 90	9·0	62,414	24·7	3·1	934	52·8	63
Poldice	Sims's 85-inch	10·33	84,782	10·4	6·7	2904	57·9	69
S. W. Frances	75-inch	11·0	70,475	13·0	4·9	1552	66·2	79
United Mines	Taylor's 85-in.	11·0	99,510	15·9	5·4	3864	56·3	67
Ditto	Hocking's 85-in.	10·0	97,817	14·4	6·9	4360	52·7	63
Treleigh Con.	Garden's 60-in.	10·25	38,201	10·8	4·1	1070	50·7	61
Tywarnhayle..	Gardiner's 80-in	10·0	82,079	13·0	7·7	3854	55·3	66
East Wh. Rose	Michell's 85-in.	10·0	82,991	13·1	2·5	1490	55·6	66

New Patents.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

G. Phillips, Upper Park-street, Islington, for preventing the injurious effects arising from the smoking of tobacco.

J. Wormald, Manchester, for improvements in machinery or apparatus for spinning and doubling cotton, wool, silk, flax, or other fibrous substances.

J. S. Leake, Whitehall Salt Works, Chester, for certain improvements in the processes and machinery or apparatus employed in the manufacture of salt.

J. Livesey, New Lenton, Nottingham, for improvements in the manufacture of textile fabrics, and in machinery for producing the same.

A. Parkes, Birmingham, for certain improvements in the manufacture of copper, and in the separation of some other metal therefrom, and in the production of alloys of certain metals.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

W. Healey, St. Martin's, Leicester, resilient straps for backs of vests, &c.—J. Jackson, Wolverhampton, ink bottle.—J. Shaw, Bishop's-place, Fulham, machine for cleansing currants.

PROVISIONAL REGISTRATIONS.

T. H. Roberts, Plymouth, drag apparatus.—J. W. Lea, Birmingham, match box.—P. Warren, Longton, danger signal for railways and railway carriages.—J. Cockings, Birmingham, *soirée* union back comb.—W. S. Adams, Haymarket, hinged lid for spectacle-cases and boxes.—*Mechanics' Magazine.*

Current Prices of Metals, Stocks, & Shares.

METAL MARKET, London, September 19, 1851.

ENGLISH IRON. *a*	*per ton.*
Bar, bolt, & square, London	£5 5–5 7 6
Nail rods	6 2 6–6 5
Hoops	7 0 0–7 5
Sheets (singles)	7 12 6–7 17 6
Bars, at Cardiff & Newport	4 10–4 12 6
Refined metal, Wales*	3 0 0–3 5
Do. anthracite*	3 10 0
Pigs in Wales	3 0 0
Do. do. forge	5 0–2 10
Do., No. 1, Clyde .*net cash*	0 0–2 0 6
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent Toughened Pigs in Glasgow	2 15 0
Do. do. in Wales	3 10–3 15
Staffordshire bars, at the works	5 5 0
Rails	4 17 6–5 10
Chairs (Clyde)	4 0 0
FOREIGN IRON. *b*	
Swedish	11 10 0
CCND	17 10 0
PSI	—
Gourieff	—
Indian Charcoal Pigs in London	5 10 0
FOREIGN STEEL. *c*	
Swedish keg	14 10 0
Ditto faggot	15 0 0
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9¼
Tough cake *per ton*	84 0 0
Tile	£83 0 0
Old copper *e* *per lb.*	8¼d
Yellow Metal Sheathing	7¾d
Wetterstedt's Pat. Metal	*Cwt.* 1 11 0
FOREIGN COPPER. *f*	
South American, in bond	77 0–87 0
ENGLISH LEAD. *g*	
Pig *per ton*	17 0 0
Sheet	18 10 0
Pipe	19 0 0
Red lead	19 0 0
White ditto	24 0 0
Patent shot	20 0 0
FOREIGN LEAD. *h*	
Spanish, in bond	17 0 0
ENGLISH TIN. *i*	
Block *per cwt.*	4 4 0
Bar	4 5 0
Refined	4 10 0
FOREIGN TIN *k*	
Banca, H. C.	4 0 0
Straits	3 19 0
TIN-PLATES. *l*	
IC Coke *per box*	1 4 6
IC Charcoal	1 9 0
IX ditto	1 15 0
SPELTER. *m*	
Plates, warehoused *per ton*	14 2 6
Ditto, to arrive	14 2 6
ZINC. *n*	
English sheet *per ton*	21 0 0
QUICKSILVER *o* *per lb.*	3s 6d

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis.; *e*, 6 months, or 2½ per cent. dis.: *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

WELSH BAR-IRON is in good request, and for rails there are considerable orders in the market for America, and for a large quantity for the Egyptian Government.

STAFFORDSHIRE IRON is dull of sale.

SCOTCH PIG-IRON, having touched 40s. 6d. for Mixed Nos., has submitted to a decline of 6d. per ton, the large consumers having supplied their immediate wants; but as the rise was not influenced by speculation, the impression is that improved rates will rule. The Egyptian Government have contracted for 14,000 tons of railway chairs, which were taken by the principal Glasgow founders. No. 1, American brands, may be quoted at 40s. 6d. free on board, in Glasgow, storekeepers' warrants; ordinary brands, makers' obligations, 39s. 6d.

SWEDISH IRON.—Not any transactions are reported. [terranean.

SWEDISH STEEL.—Some small parcels have been purchased at full rates for the Medi-

COPPER is in fair demand.

BRITISH TIN—Common is in better request, some considerable sales have been made. Refined is in good demand.

FOREIGN TIN—The accounts from Holland bring higher rates; the principal holders here are very firm, and are not disposed to realise at present prices.

SPELTER—75 tons have been done at 14*l.* on the spot for shipment.

LEAD is without alteration. TIN-PLATES are dull of sale.

GLASGOW, SEPT. 18.—The pig-iron market has been quieter this week, and less business has been done, and prices have, consequently, declined somewhat; it has arisen principally through the want of vessels, which have hindered the shipments, and the makers refusing to sell at the low rates; there is no doubt that the stocks are diminishing, and the trade may be considered in a healthy state, though the masters have been heavy losers by the low rates ruling during the last two years. The local consumption continues very large:—

Mixed Nos., good brands, free on board here	.....	39s. 3d. per ton, nett cash.	
No. 1, ditto	ditto	..... 39s. 6d.	ditto
No. 1, Gartsherrie	ditto	..... 41s. 6d.	ditto
No. 1, Coltness	ditto	..... 41s. 0d.	ditto

MINES.—The market has been tolerably brisk this week, and dividend mine shares generally maintain their prices, whilst in some new speculations the prices demanded (and in many cases obtained) have been at an apparently unjustifiable high rate. Looking at the present position of some of these schemes, and their probable ultimatum, we are at a loss to understand what is the rule of calculation with the buyers in being so ready to embark at enormous premiums. The brokers and agents in the market, we understand, put their clients on their guard, laying before them the inevitable results which a few weeks, there is too great reason to expect, will develope. The purchasers are, we are informed, chiefly from the country, unconnected with mining or the mining districts. So it continues our duty to caution our readers to be well advised before they purchase, and to take advantage by selling, if they can, at the present high prices. The want of capital in the mining market is generally complained of, and is likely to continue whilst so much is absorbed by new mines, several of which have been got afloat under the *prestige* of eminent firms of the Stock Exchange, without the influence of whose names they would have remained dormant. It is a new feature in mining speculation, that respectable firms, members of the Stock Exchange, should lend the use of their names for the purpose of bringing out new mining adventures, and thousands, we are assured, have been obtained by such means. The shares are divided usually into large numbers, generally in tens of thousands; and at starting, they go to a premium, and are probably dealt in in "the house;" but, as a natural consequence, when they drop to a discount, are never quoted in the list, or, perhaps, heard of within the walls of this leviathan body. This is, then, the chief cause of the absorption and diversion of capital, which would have been otherwise employed in legitimate mining pursuits. The Mining Exchange, or its members, are in nowise answerable for such conduct. We can, therefore, so far congratulate the mining brokers and agents in not having joined the Stock Exchange, but having an Exchange of their own; and to whom, we again repeat, the public will look for correctness in their dealings. We have not yet been favoured by the secretary or the committee of the Mining Exchange with the promised list of "weeds;" and, therefore, unaided as we are by that body, we are anxiously endeavouring to make our list as correct as possible, and are amply rewarded by the acknowledgments of numerous correspondents; we shall continue to do justice to "one and all" by making true quotations (as far as we can), so as neither to mislead the buyer or seller.

We are sorry to perceive a drop in the standard at the ticketing for copper ore on Thursday, equal to 1*l.* per ton, from that of the preceding month.

In the Metal Market,—Copper remains well inquired for and steady in price.—A good business is also doing in Lead.—A marked change for the better has taken place in Tin: Refined is brisk, and Common more in demand than for some time past. Foreign Tin is also greatly improved; good accounts from Holland have made the holders here disinclined to do business at current rates.

The price of bar silver has experienced a still further decline, of ½d.—being now quoted 5s. 0½d. per ounce, and even at this reduced quotation the market is by no means strong. The price of Mexican and South American dollars, however, now wears a somewhat steadier appearance, at 4s. 10¾d. per oz. The price of gold yesterday at Paris was 2 per mille discount (new tariff rate), which, at the English Mint price of 3*l.* 17s. 10½d., per ounce for standard gold, gives an exchange of 25·12, and the exchange at Paris on London at short being 25·15, it follows that gold is about 0·119 per cent. dearer in London than in Paris.

The London imports for the week comprise—from Dantzic, 7357 plates of spelter; Stettin, 7671 plates spelter, 18,472 plates zinc; Amsterdam, 1000 slabs tin; Christiana, 50 tons nickel ore.

At Hull—from Hamburg, 4350 plates spelter.

The biddings for 35 tons of silver-lead ore from Allt-y-Crib Mine varied from—8*l.* 1s. 6d. by the Tamar Smelting Company, to 10*l.* 15s. per ton by Newton, Keates, and Co.

The ticketings for 90 tons of Foxdale (Isle of Man) lead ore varied from—8*l.* 8s. per ton by the Tamar Smelting Company, to 10*l.* 17s. 6d. per ton by Sims, Willyams, Nevill, and Co.

East Wheal Rose sold 36 tons of lead ore at 14*l.* 0s. 6d., and 16 tons at 14*l.*, to T. Somers, and 5 tons at 8*l.* 18s. 6d. per ton, to Locke and Co.

Wheal Mary Ann sold 85 tons lead ore, at 20*l.* 17s. 6d. per ton, to Sims and Co., and Locke and Co.

Wheal Golden sold 56 tons of lead ore, at 11*l.* 15s., to J. T. Treffry.

Herodsfoot sold 55 tons lead ore, at 11*l.* 8s. 6d. to Sims and Co.

Tamar Silver-Lead Mines sold 51 tons lead ore, at 17*l.* 18s. 6d., to T. Somers, and 52 tons, at 18*l.* 9s. 4d. per ton, to the Tamar Smelting Co.

Two parcels of black tin from Prince Albert Tin and Copper Mine were sold to Messrs. L. C. and W. Daubuz this week. No. 1 realised 49*l.* 5s. per ton; No. 2, 25*l.* per ton.

A parcel of black tin from Wheal Augusta realised 52*l.* 10s. per ton.

The directors of the Devon Great Consols Copper Mining Company, at their meeting on Wednesday last, declared a dividend of 5120*l.*, being 5*l.* per share, arising from sales of copper ores sampled for the months of May and June last. After payment of the same there will remain in hand a balance of 17,022*l.* 9s. 4d. in cash, ore bills not at maturity, and reserved funds applicable to the general purposes of the company. The report from the mines received this day is, we understand, very favourable.

At Wheal Buller meeting, on Tuesday, the accounts for July and Aug. showed—Balance from the last account, 1475*l.* 2s. 2d.; ores sold (less dues), 4930*l.* 16s. 3d.=6405*l.* 18s. 5d.—Mine costs and merchants' bills, 1860*l.* 11s. 11d.; dividend of 12*l.* 10s. per share (3200*l.*), leaves balance in favour of adventurers, 1345*l.* 6s. 6d.

At Wheal Lovel quarterly meeting, on the 8th Aug., a dividend of 2*l.* per share was declared. The mine continues to look well for tin.

At Alfred Consols bi-monthly meeting, on Monday, the accounts showed—Copper ore sold, 10th July and 7th August, 2872*l.* 19s. 9d. (less dues, 159*l.* 12s. 2d.)—Labour cost, June and July, 862*l.* 12s. 10d.; merchants' bills, 304*l.* 13s. 4d.—leaving a profit of 1546*l.* 1s. 5d.; add balance in hand last account, 243*l.* 6s. 5d., makes 1789*l.* 7s. 10d.—deduct dividend, 1536*l.* leaves balance to next account, 253*l.* 7s. 10d. A dividend of 6s. per share was declared. The highly-favourable report of the underground workings will be found among the British Mines.

At the Kirkcudbright meeting, on Tuesday, the accounts showed—Balance in favour of the mine in August, 272*l.* 13s. 6d.; lead ore sold, 397*l.* 3s. 4d.=669*l.* 16s. 10d.—Cost for August, 518*l.* 10s. 6d.: leaves balance to next account, 151*l.* 6s. 4d.—Assets: 40 tons lead ore sold on the 28th Aug., 383*l.* 11s. 3d.; lead in stock, 240*l.*, on which the cost is charged in the above 774*l.* 17s. 7d. A dividend of 5s. per share was declared. [The report will be found in another column.]

At Spearne Consols meeting, on Saturday last, a dividend of 2s. 6d. per share was declared.

At a general meeting of the shareholders in the Great Polgooth Mining Company, held on Wednesday (F. C. Brown, Esq., in the chair), the accounts showed—Tin sold in April, May, and June, 4093*l.* 13s. 11d.; arsenic, 24*l.* 18s. 9d.; mundic, 83*l.*; copper ore, 35*l.*; tin slimes on floors, estimated at 150*l.* = 4386*l.* 12s. 8d.—To working cost for April, May, and June, including London expenses, 3425*l.* 8s. 7d.; less materials, &c., charged, but not used, 139*l.* 5s. 9d.: showing balance to next account 1100*l.* 9s. 10d. A dividend of 2s. per share was declared, being at the rate of 14 per cent. per annum, and it was resolved in future to declare them at intervals of not less than six months. [A full account of the proceedings will be found in another column, as well as the agent's report, all of which are of the most satisfactory character—the promises in the prospectus having thus far been fully realised.]

At Consols Mines meeting, on Wednesday, the accounts for July and August showed—Balance from last account, 803*l.* 6s. 10d.; costs and merchants' bills, 4800*l.* 18s. 6d. = 5604*l.* 5s. 4d.—By ores sold, 4009*l.* 1s. 3d.: leaving balance against adventurers, 1595*l.* 4s. 1d.

At the Berriow Consols meeting, on the 9th inst., the accounts for three months ending July showed—Balance in favour of adventurers to end of April, 94*l.* 11s. 1d.; spare materials sold, 150*l.*=244*l.* 11s. 1d.—Mine cost for three months, 125*l.* 5s. 11d.; sundry bills, 16*l.* 4s. 6d.: leaving balance in favour of adventurers, 103*l.* 0s. 8d.

At a general meeting of shareholders in North Wheal Trelawny, at the Queen's Arms Inn, Menheniot, on Wednesday, the accounts for June and July showed—Balance in favour of mine from end of May, 7*l.* 16s. 10d.; by call of 1s. per share, 53*l.*=60*l.* 16s. 10d.—June cost, 14*l.* 17s. 5d.; July ditto, 35*l.* 1s. 1d.: leaving balance in favour of mine, 10*l.* 18s. 4d. They were allowed and passed. A call of 1s. per share was made, payable before the 2d of October. The next general meeting is to be held at the Tamar Inn, Calstock, on Wednesday, the 12th November. It was resolved that the report from the agents be adopted, and, with the accounts, resolutions, &c., be published in the *Mining Journal*. [The report will be found among our Mining Correspondence.]

At South Trelawny quarterly meeting, on Saturday (T. Coath, Esq., in the chair), the accounts showed—Balance last account, 104*l.* 16s. 9d.; cost for May, 80*l.* 17s. 10d.; ditto for June, 55*l.* 7s. 1d.; July, 53*l.* 12s. 8d.= 294*l.* 14s. 4d.—Call, 31st May, 198*l.*: leaves a balance to next account of 96*l.* 14s. 4d. A call of 2*l.* per share was made.

At Esgair Llee meeting, on the 11th inst., the accounts showed—Balance in hand from last account, 235*l.* 15s. 9d.; November ore (less dues), 244*l.* 0s. 3d.; call, 640*l.*; Feb. ores (less dues), 193*l.* 2s. 2d.; call, 640*l.*; April ores sold (less dues), 238*l.* 14s. 3d.; June ditto, 170*l.* 5s. 5d.= 2361*l.* 17s. 10d.—Mine cost, Nov. and Dec., 360*l.* 7s. 3d.; Jan. and Feb., 392*l.* 10s. 4d.; March and April, 337*l.* 6s.; May and June, 329*l.* 7s. 8d.; July, including discount, stamps, &c., 165*l.* 17s. 10d.: leaving a balance in favour of the mine, 776*l.* 8s. 9d., which accounts were allowed and passed. A call of 10s. per share was made. Messrs. Thomas Field and Thomas Phipps Thomas, were chosen trustees, a new deed approved of and to be forthwith engrossed, and the consideration money paid on Friday, the 26th inst., to when this meeting adjourned. [A full report will be found in another column.]

At Lelant Consols quarterly meeting, on the 30th of Aug., the accounts showed—Balance last account, 674*l.* 3s. 1d.; labour cost for April, May, and June, 868*l.* 2s. 7d.; merchants' bills, 311*l.* 3s. 2d.=1853*l.* 8s. 10d.—By tin sold, 548*l.* 2s. 11d.; materials, 19*l.* 11s. 6d.; call of 3*l.* per share, 2d June, 768*l.*: leaves balance to next account, 517*l.* 14s. 5d., and loss upon the quarter, 611*l.* 11s. 4d. A call of 2*l.* per share was made, and the purser was instructed to take such proceedings as might be necessary to enforce the payment, in the Stannary Court, of the 220*l.* arrears of calls. Captain Richards having recommended that the engine on the south mine be removed to Rodd's shaft, the same was agreed to. The engine-shaft is 6½ fms. below the 100. All the ground opened westward, towards Wheal Margaret (which is good tin ground), has been poor and unsuccessful. Praed's shaft is sinking below the 86; they have cut some good tinny stuff, consequently all operations are suspended below this level. At the south mine, the lode in Rodd's shaft, under the 60, is improved in quality and appearance. The 60 east, for the first 20 fathoms, was good tin ground; west, for 40 fms., much better than in the level above. These levels, and Rodd's shaft under, are considered likely to realise ultimately some profit.

At Wheal Trefusis bi-monthly meeting, on Monday, the accounts showed—Balance last account, 571*l.* 4s.; call collected, 316*l.* 10s. = 887*l.* 14s.—To July labour cost, 196*l.* 2s. 1d.; August, 207*l.* 12s. 10d.; merchants' bills, 169*l.* 11s. 4d.: leaving balance to next account, 314*l.* 7s. 9d. A call of 1*l.* per share was made, and as 195*l.* 10s. stands in arrear, the purser was requested to take proceedings in the Vice-Warden's Court for the recovery of the calls so due. The tinstuff rose in the two months is valued at 150*l.* In the 34 cross-cut south they are driving in hard granite. The 24, on the engine lode, is extended beyond the junction of granite and killas; the lode is 2 ft. wide, producing a small quantity of tin, and some rich stones of copper ore. Other parts of the mine are progressing in a true mining-like manner.

At the Carvannall meeting, on the 9th inst., the accounts showed—Balance last account, 99*l.* 11s. 9d.; cost for June, 210*l.* 0s. 11d.; July ditto, 330*l.* 14s. = 640*l.* 6s. 8d.—By call, July 8, 316*l.* 16s.: leaving balance to next account, 323*l.* 10s. 8d.; to discharge which a call of 6s. 2d. per share was made, and the purser instructed to carry out the measures against all defaulters, as resolved on at the meeting in March. The ore evidently dips west. The engine-shaft has been sunk 11 fms. at 6*l.* per fm. since last account, lode 3½ ft. wide, composed of gossan, spar, and prian. The 56 fm. level has been driven west 21 fms., at 2*l.* per fm., lode 4 ft. wide, nearly under the rich ore in the level above; in the back and bottom of the 46 are two pitches, working at 6s. tribute, and men getting fair wages. The 32 cross-cut south is within 20 fms. of Caddy's lode. A new shaft

from surface is about to be sunk, 32 fms. west from engine-shaft. The new steam-whim is nearly completed.

At West Providence Mine quarterly meeting, on the 10th inst., the accounts showed—Copper ore sold, 718*l.* 6s. 7d.; tin ore, 1187*l.* 12s. 9d.= 1905*l.* 19s. 4d.—Dues (1-18th), 105*l.* 17s. 8d.; labour cost for April, 420*l.* 9s. 10d.; May, 379*l.* 16s. 7d.; June, 365*l.* 2s. 4d.; merchants' bills, 570*l.* 1s.: showing profit of 64*l.* 11s. 11d.; from which deduct balance last account, 25*l.* 2s. 10d., leaves balance in hand to next account, 39*l.* 9s. 1d. Boundary engine-shaft is 7 fms. under the 73 fm. level, and is worth 20*l.* per fm.; in the next level it is expected Allen's branch will fall into the lode, and in all probability improve it. The 73 west is driving by four men at 30s. per fm., and turning out tin worth 12*l.* per fm. The 63 west by four at 4*l.* per fm., and yielding tin worth 10*l.* per fm.; the backs are all standing, and can be taken away at 2s. in 1*l.* The 53 west is driving by two men at 4*l.* per fm., and turning out tin ore worth 6*l.* per fm.; ten men are stoping the back at 16s. per fathom, which yields 14*l.* in tin ore. Four men are stoping the back of the 40 at 23s. per fathom, and the tin is worth 10*l.* per fathom. The 30 is equally as good, and the prospects generally were never better.

At Wheal Sithney meeting, on Tuesday, the accounts for four months, ending July, showed—Balance from last account, 23*l.* 2s. 7d.; costs and merchants' bills, 204*l.* 5s. 8d. =227*l.* 8s. 3d.—By ores sold, 17*l.* 1s. 11d.—call of 10s. per share, 121*l.*: leaving balance against adventurers, 89*l.* 6s. 4d. A call of 1*l.* per share was made.

At the Bridford Consols meeting, on the 9th inst., the accounts for three months ending July showed—Balance against adventurers to the end of April, 15*l.* 2s.; mine cost for three months, 134*l.* 4s. 5d.=149*l.* 6s. 5d.—By call, May 20, 128*l.*: leaving balance of 21*l.* 6s. 5d. against adventurers. A call of 10s. per share was made. [The reports are inserted among our Mining Correspondence.]

At Okel Tor meeting, at Plymouth, on the 9th inst., the report of the managing agent (W. B. Collom) having been read, was entered upon the cost-book, and the necessary measures to carry out the recommendations therein conveyed were unanimously agreed to. A consulting committee of four were elected to confer with the agent and engineer as to the purchase and immediate erection of a suitable steam-engine for developing the mine in depth, for which purpose a call of 5s. per share was made. The engine-shaft is down 30 fms. under surface, and a 20 fm. level crosscut driven 6 fathoms, where they met the silver-lead lodes at the junction, forming one lode more than 12 ft. wide, with a leader of about 5 feet, of silver-lead ore, prian, spar, mundic, and copper ore; the water, however, prevented them pursuing it. Nothing more can be done without a steam-engine. The adit is driving on the lead lode north, to intersect a gossan lode seen on top of the hill, underlaying south. The shaft will command all the lodes, and from the soft nature of the ground much may be laid open in a short space of time.

A meeting of the adventurers in North Wheal Buller took place on Wednesday, when the accounts were passed, and encouraging statements as to the future prospects were received from two directors, who inspected the mine a few days since: there are important improvements in the lower levels. Reports from the inspecting captain, and Captain Sincock, with proceedings of the meeting, will appear in our next Journal.

At the Devon and Courtenay Consols meeting, on Tuesday, the accounts showed—Balance last account, 167*l.* 10s. 4d.; July cost, 539*l.* 12s. 9d.; August, 282*l.* 15s. 7d. = 989*l.* 18s. 8d. By copper ore sold, 127*l.* 8s. 4d.; call, July 15, 832*l.*: leaves balance to next account, 30*l.* 10s. 4d., as audited and passed. The under-mentioned shares were declared forfeited for non-payment of calls—viz.: John White, 22; M. W. Shaw, 10; Charles Green, 5; also Mr. Halket, 50, and Mr. Michell, 50, which have been sold to purchasers who have failed to register them—the number now on the register book being only 4023—resolved, the same be confirmed. A call of 4s. per share thereon was made. The engine-shaft is 9½ fms. below the 60 fm. level; in two months they expect to intersect the lode at the 70. Carthew's shaft is 7 fms. below adit, now passing through a bed of elvan. In July, 6 fms. were stoped in the back of the 60, and yielded 15 tons of ore. If the ground holds as at present the tributers will get good wages. The wheel at the western mine is 30½ ft. diameter—9 ft. over the breast, with a full supply of water from the River Tavy; the length of the rods to Rendle's shaft is 154 fms. They expect to sample 20 tons of ore by the end of the month.

At Warleggan Consols bi-monthly meeting, on the 5th Sept., the accounts showed—Balance in hand last account, 69*l.* 3s. 8d.; calls received, 229*l.* 10s.; sale of ore, 56*l.* 16s. 2d.=335*l.* 9s. 10d.—Costs for May and June, 175*l.* 19s. 1d.; secretary's salary and disbursement in London for two months, 21*l.* 1s. 8d.: leaving balance in hand, 158*l.* 9s. 1d., as per auditors' statement. A deputation had recently returned from inspecting the mine, and expressed themselves well satisfied with the efficient state of the machinery and progress of the operations generally. In less than two months they expect the engine-shaft to be down 12 fms. under adit, and the north shaft is 8 fms. deep; lode not yet intersected in the south cross-cut: 270 shares are in arrear 33*l.* 15s. on call made 1st December; 440 shares on that made 3d April, 33*l.*; and 3250 shares on the last made, 1st August, 406*l.* 5s.=473*l.*

At the Cockley Beck Mining Company's meeting, held at Liverpool (S. M'Cullock, Esq., in the chair), the accounts, which had been audited by the committee showed—First call, 250*l.*; less arrears, 57*l.* 10s.=192*l.* 10s. By working costs, four months, including agents' salaries, 160*l.* 13s. 3d.; merchants' bills, 14*l.* 18s.=175*l.* 11s. 3d.: leaving balance in favour of the company, 16*l.* 18s. 9d. The estimated outlay to cover costs for the ensuing two months' working were 100*l.*—to meet which a call of 2s. 6d. per share was made. The report of Capt. Benjamin Tucker was very encouraging, and he exhibited some rich stones of copper ore, estimated to produce 25 per cent. for copper from the forebreast of the deep adit; these were broken from a bunch now left on the sole of this level. The captain expresses a confident opinion that this bunch will turn out more ore than the mine has yet produced. The assay of this ore, by Dr. Sheridan Muspratt, is 24·65 for copper. The upper adit now shows every indication of the near approach to a body of copper; spots of copper in a rich gossan form the stuff now driving upon in a lode, 3 ft. wide.

At Trethevy Copper Mine meeting, on Monday the accounts showed—Cash received, 452*l.* 17s. 6d.—Balance last account, 69*l.* 9s. 2d.—Cost for June, 172*l.* 11s. 9d.; July, 192*l.* 17s. 6d.: leaving balance to next account, 17*l.* 19s. 1d. A call of 1*l.* per share was made, to clear off all liabilities. Captain Seymour's resignation was accepted, and the committee requested to select an agent in his place. The report of Mr. Noah Coward states that the progress of the shaft is impeded by a hard elvan. The lode in the 40 is expected shortly to be cut, and soon after both lodes in the level under. The engine-shaft had been sunk 3½ fms. in the two months. The lode in the 40 is large, but poor.

At Wheal Lemon meeting, on the 5th inst., the accounts showed—Balance last account, 79*l.* 12s. 11d.; labour costs from March to end July, 466*l.* 9s.; merchants' bills, 560*l.* 13s. 5d.=1106*l.* 15s. 4d.—By call, March, 500*l.*: leaves balance to next account, 606*l.* 15s. 4d. A call of 1*l.* per share was made. The engine-house is ready to receive the engine, all the heavy parts of which are upon the mine, including two boilers, capstan, shears, &c. The flat-rod shaft is timbered and secured, and against the next meeting favourable intelligence is confidently expected.

At Great Sheba Consols Mine meeting, on Monday, the accounts showed—Cash received, 566*l.*; less balance last account, 155*l.* 8s. 11d.; costs for June, 203*l.* 0s. 2d.; July, 151*l.* 2s. 11d.: leaving balance to next account of 56*l.* 8s. A call of 1*l.* 5s. per share was made payable on the 25th inst., to meet 400*l.*, due to Messrs. Nicholls, Williams, and Co. The large wheel is expected to go to work on the 1st October. Mr. Noah Coward reports that the north shaft is down from surface 27½ fathoms, and is sinking at 13*l.* 10s. per fm. That on Vatcher's lode is 12½ fms.; but suspended on account of water.

At Wheal Gill meeting, on Monday, the accounts showed—Balance last account, 69*l.* 6s. 4d.; cash received, 670*l.*=739*l.* 16s. 4d. Paid lessees, 50*l.*; June cost, 120*l.* 7s. 4d.; July, 170*l.* 15s. 3d.; balance for engine 350*l.*: leaving balance to next account, 48*l.* 13s. 9d. It was resolved that those parties in arrear of calls be requested to discharge the same within a week, as it is the determination of the committee not to permit debts to accumulate, and that the said committee do meet in one week, to give instructions as to what course is to be adopted, in case any arrear of calls should then remain. The report of Mr. Noah Coward states, that the engine-house is completed, and the engine is expected to be set to work in two or three months hence: when the water is forked the mine will be developed with all speed.

A meeting of adventurers in Wheal Fortune Silver-lead Mine, at King's Mill, Landulph, was held at Cargreen, on Wednesday, when a favourable report was received from Capt. Penaluna, of Wheal Providence, and all parties appeared delighted with the future prospects of the mine. [The report is among our Mining Correspondence.]

At Tremar Mine bi-monthly meeting, on the 10th inst., the accounts showed—Balance in hand from last account, 154*l.* 4s. 3d.; call, 235*l.*= 389*l.* 4s. 3d.—To June cost, 83*l.* 6s. 11d.; July, 100*l.* 10s.: leaves balance in hand to next account, 205*l.* 7s. 4d. A call of 10s. per share was made to meet the cost of steam-engine, &c., and the purser was instructed to take legal proceedings against all shareholders in arrear, if not paid on the 25th inst.—49 shares that had been abandoned were accepted on behalf of the company. The driving on the course of Ruby's lode yields occasional stones of copper ore. The engine-shaft is down 12 fms. below the surface, and the horse-whim put to work.

It affords us pleasure this week to refer our readers to the highly prosperous reports received from Wheal Tremayne and Alfred Consols Mine, both of which will be found in another column.

At Runnaford Coombe Meeting, on the 16th inst., the steam-engine and stamps, with working gear complete, were sold to Mr. Manuel for 900*l.*, less 2½ per cent. discount. Capt. Martin Dunn reported that three weeks' raising of tinstuff was from 10 to 12 cwts., worth 3*l.* per cwt. [The report is among our Mining Correspondence.]

The engine at Wheal Crebor goes to work this day.

Trebell Consols adventurers have purchased the engine from Runnaford-coombe Mine; the house is progressing, and the engine will be moved into it and set to work with all speed. Good results are expected to follow.

We understand that the majority in Calstock Consols has been obtained by the Wheal Zion party, and it is expected the two setts will be amalgamated. The chief of the lodes run through the two mines for nearly a mile, forming a junction in the Calstock property. Our correspondent adds:—"No one can go on the spot without being perfectly satisfied that if Zions are worth 8*l.* or 9*l.* in the market, Calstock Consols should be worth double."

At Wheal Williams the water is forked to the bottom of the shaft, or 30 fathom level. The lode standing in the end of the shaft, so far as cut down, is 3 to 4 ft. wide, and very promising, containing rich copper ore.

At Silver Valley and Wheal Brothers they are progressing favourably, as will be seen by the report among the British Mines.

Several shareholders will leave London this evening (Saturday) to visit the Great Bryn Consols Mine.

At Black Craig Mine they have commenced driving a 40 fm. level east and west under the orey ground they had in the 25, where they have three good pitches working—one of which has yielded 10 tons of ore per fm., at 35s. per ton, dressing included. Five other pares of tributers are working in the same level, and raising a fair quantity of ore; besides four others in the 7 fm. level doing well. August ore is estimated at 100 tons, Sept., 120—one cargo of which has been shipped, and next week another will be put on board.

Wheal Carpenter (Tavistock) is being prosecuted with the utmost vigour, and we are informed never looked more promising than at present.

At Nancekuke the lead lode continues to look well: the sampling will be about 40 tons of silver-lead ore.

We have the satisfaction to announce the fact that the Phœnix Mine is upon the eve of declaring a third dividend, and that the Kirkcudbright Mine is now paying her first—say, 5s. per share.

We are credibly informed that the number of applications already received by the Devon Copper Ore Smelting Company are for 26,000 and odd shares, a considerable portion of which are from parties resident in the counties of Devon and Cornwall, and as they double the number to be issued, a premium is already giving in the market for the coming out.

We have been gratified with a sight of the veritable gate-post, which has been brought from Tavistock in its pristine state (6 ft. high, hangings and all) to St. Dunstan's-hill, and is justly pronounced by all the mining men who have beheld it as worthy a place in the Crystal Palace. It weighs about 12 cwts., showing copper and greens from end to end. The parties who hold the sett are working on other lodes, from which several large and rich specimens of copper ore accompany the stone of larger growth.

Business has been transacted in Alfred Consols, West Providence, Trelawny, Silver Valley, Mary Ann, Venton, Black Craig, Merllyn, South Caradon, West Caradon, Cockley Beck, Wheal Reeth, Bedford United, Wheal Crebor, Devon Great Consols, Hingston Downs, West Alfred Consols, Boringdon Park and East Boringdon, South Tamar, Penzance Consols, East Wheal Russell, Devon and Courtenay, Wheal Lemon, and Wheal Williams.

In Foreign Mines, shares have changed hands in National Brazilian at an advance: business has also been done in St. John Del Rey, Santiago, and United Mexican.

The dividend declared by the Burra Burra Mine, we believe, was 5*l.* per share. The particulars have not yet arrived in England.

The Worthing Mining Company have advices to the 19th May, which will be found in another column. The workings have been impeded by water—in fact, little can be done till the engine has been put to work. The Gully south end is reported worth 16*l.* per fm.

From the National Brazilian Mines the advices are to the 29th of July. The accounts are satisfactory, although the produce is less than last month. The decrease, however, is apparently of only temporary duration; Cocaes, for 30 days, being Mks. 17 4 5 55, and Cuiaba, Mks. 5 6 7 24: total, Mks. 23 3 2 7. More borers are about being set to work at both mines, and at Cuiaba in about six weeks they expect to be stoping away below the old excavations at Hitchens's level, with double forces. At the office we saw some stones of pure gold in the jacotinga and quartz, just received from the Cocaes Mine, the gold showing a continuous vein for 8 or 9 in. long, and disseminated throughout one side of the stone; fine specimens of the sort.

From the Linares advices have been received from Capt. Curry to the 7th inst. The San Thomas engine-shaft progresses downward satisfactorily. The 55 west is yielding 3 tons of lead per fm.; the stopes east from 5 to 6 tons per fm. A new pitch in the back, at 1½ real per arroba, bids fair to produce a considerable quantity of lead ore. The 55, east of Shaw's, is turning out 2 tons per fm., and leaving good tribute ground back and bottom. The shaft is nearly down. The tribute department altogether looks well—18 pitches, working at an estimated tribute of 30s. 6d. per ton, dressing included. The raisings for August exceed 200 tons, and the calculation for September is 240 tons. Lead ore weighed in to the 7th Sept., 55 tons; total in stock, 427 tons; pig-lead smelted, 24 tons 6 cwts.; total in stock, 346 tons 2 cwts.

MINING COLLEGE IN CORNWALL.—We have just learned that there is every probability of the once-contemplated "Mining School" being shortly brought before the notice of the county, with a view to establish a Mining College.

MINING IN CAMBORNE.—Any person of an observant turn resident in, or conversant with, the chain of mines lying between Gwennap Consols and the town of Camborne, will have remarked that the chain has of late years been extending westward; and we think that much valuable ground probably lies undeveloped to the west of Stray Park, North Roskear, and Wheal Seton. There is a sett called in Mr. Symon's map "Capt. Lean's sett," for want, we suppose, of a name, and because Capt. Stephen Lean, of Wheal Seton, is the lessee, which is virgin ground, but which appears to be so situated as to leave an impression in favour of its being tested. We have no doubt that some party will, ere long, think it worthy their attention, and co-operate with Capt. Lean in exploring the lodes which intersect it. He is so confident of a successful result that he will, we are informed, retain a large share in the adventure.

NOVEL IRON BUILDING.—A lodging-house has just been constructed at King's-cross, by Messrs. R. M'Kean and Co., of Birkenhead, which is attracting much attention, from its commodiousness and beauty: it is 75 ft. long by 25 ft. wide, and two stories high, entirely framed of malleable iron, with strong plate iron walls, ingeniously made to slide into grooves formed in the upright standards, without bolts or rivets, and thus obviating all difficulty in putting together or taking asunder the house, which is covered with a circular corrugated iron roof. The entrance is by a handsome saloon, 70 feet long, with a table running the whole length, on each side of which the bed-rooms are arranged. From thence you pass up a handsome flight of steps, right and left, to the gallery, to another double range of apartments, altogether forming a particularly neat and comfortable establishment.

IMPORTANT TO PUDDLERS.—At the Bilston Petty Sessions, an underhand puddler, S. Allcock, was summoned by his master, H. Morgan, for absenting himself from his work, without giving the usual notice. Allcock, in defence, said the reason he left was because his master would not pay him extra for making "scrap ball." Several experienced puddlers were examined, who said it was not customary to pay the underhand extra for making scrap ball. Mr. Leigh, addressing the defendant, said it was the first time such a case had been brought before him, and under these circumstances he should not commit him to the house of correction, as he otherwise should have done. The case was accordingly dismissed; the defendant to pay costs.—*Wolver. Chronicle.*

An anthracite smelting furnace has been recently erected at the Hean Castle Works, near Saundersfoot, which was put in blast about three weeks ago, prior to the opening of coal and mine pits, &c.; the experiment was highly successful, and reflects great credit on those engaged in erecting it.

LEAD ORES.

TICKETINGS FOR 35 TONS SILVER-LEAD ORE FROM ALLT-Y-CRIB MINE.

Bidders	*Sold at Aberystwith, on the 12th Sept.*	*Amount Bid.*
Newton, Keates, and Co. (purchasers)		£10 15 0
Locke, Blackett, and Co.		9 12 6
Michell and Son		10 1 6
Pontifex and Wood		8 16 6
Sims, Willyams, Nevill, and Co.		10 13 0
T. Somers		10 11 6
Tamar Smelting Company		8 1 6

TICKETINGS FOR ABOUT 90 TONS FOXDALE LEAD ORE.

Bidder.	*Douglas, Isle of Man, Sept. 16.*	*Amounts Bid.*
Sims, Willyams, Nevill, and Co. (purchasers)		£10 17 6
Walker, Parker, and Co.		10 17 0
Newton, Keates, and Co.		10 16 0
J. P. Eyton		10 11 0
T. Somers		10 5 6
Tamar Smelting Company		8 8 0
Pontifex and Wood		9 5 0
Locke, Blackett, and Co.		9 10 0
W. J. Cookson and Co.		9 15 0

Mines.	*Tons.*	*Price per Ton.*	*Purchasers.*
Wheal Golden	56	£11 15 0	J. T. Treffry.
Wheal Mary Ann	42½	20 17 6	Sims and Co.
ditto	42½	20 17 6	Locke and Co.
East Wheal Rose	86	14 0 6	T. Somers.
ditto	5	8 18 6	Locke and Co.
ditto	16	14 0 0	T. Somers.
Herodsfoot	55	11 8 6	Sims and Co.
Tamar	51	17 18 6	T. Somers.
ditto	52	18 9 6	Tamar Company.

COPPER ORES.

Sampled August 27, and Sold at Swansea, September 16, 1851.

Mines.	Tons.	Prod.	Price.	Mines.	Tons.	Prod.	Price.
Cobre	99	16½	£12 2 6	Berehaven	126	10½	£7 12 6
ditto	91	16½	12 1 0	ditto	123	10½	7 9 0
ditto	74	16½	12 2 6	ditto	102	10½	7 11 0
ditto	69	16½	12 1 6	ditto	82	10½	7 9 0
ditto	61	24	18 19 6	Spanish	60	6½	5 3 6
ditto	57	24	18 11 6	ditto	54	7½	5 3 6
ditto	56	23½	18 6 0	Waterloo Slag	83	4½	2 14 0
ditto	13	80½	59 10 6	ditto	9	1½	0 15 6
ditto	10	18½	13 1 6	ditto	8	8½	6 0 0
ditto	103	15½	11 3 0	ditto	6	13½	9 15 6
ditto	96	14½	10 18 0	Greenbourne	49	9½	7 3 0
ditto	93	15½	11 0 0	Lackamore	39	8½	6 12 0
ditto	48	25½	19 8 6	Montreal	34	14½	11 9 0
ditto	38	25½	18 18 6	Gyfron	21	23½	18 10 6
ditto	100	14½	11 3 6	ditto	6	9½	7 4 0
ditto	60	16½	12 3 6	Ballyhooligan	8	14½	10 19 0
ditto	11	80½	59 12 6				

TOTAL PRODUCE.

Cobre	1079	£15546	5 0	Lackamore	39	£257	8 0
Berehaven	433	3258	2 0	Montreal	34	389	6 0
Spanish	114	589	19 0	Gyfron	27	431	17 0
Waterloo Slag	106	337	11 6	Ballyhooligan	8	87	12 0
Greenbourne	49	351	11 6				

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	495	£4382 7 6
Freeman and Co.	69	412 13 0
Pascoe Grenfell and Sons	216	2648 9 0
Sims, Willyams, & Co.	154	1335 7 0
Vivian and Sons	292	3217 17 0
Williams, Foster, and Co.	42	476 18 0
Mines Royal	55	394 18 6
Schneider and Co.	126	1891 19 0
British and Foreign Copper Company	83	1022 11 6
Mason and Elkington	77	1413 6 0
Low's Patent Copper Company	126	950 15 0
F. Bankart	149	2492 10 6
Total	1889	£21,249 12 0

Copper Ores for Sale Sept. 30.—Cobre, 96, 82, 81, 60, 58, 47, 43, 23, 12, 91, 90, 68, 67 63, 49, 48, 22—Chili, 54, 53, 52, 51, 50, 49, 48, 40—Berehaven, 104, 95, 82—Knockmahon 80, 75, 63, 49—Kaw-aw, 40, 34, 22, 1.—Total, 2042 tons (21-cwts.)

AVERAGES.

	Produce.	Price.	Standard.
British	9 11-16	£ 7 3 0	£96 14 0
Foreign	17 15-16	13 9 6	87 9 0
Sale	15½	£11 5 0	£89 11 0

Totals—British 662; Foreign, 1227 = 1889 tons (21-cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	9½	£ 7 9 6	£98 18 0
Foreign	16	11 18 6	88 8 0
Sale	14½	£10 12 6	£90 10 0

Totals—British, 575; Foreign, 1401 = 1976 tons (21 cwts.)

COPPER ORES.

Sampled Sept. 3, and Sold at the Royal Hotel, Truro, Sept. 18.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Devon Gt. Cons. } Wh. Josiah }	106	£5 16 0	Wheal Anna Maria	44	£5 14 0
ditto	96	4 7 0	West Caradon	66	6 0 6
ditto	93	5 14 0	ditto	62	5 5 6
ditto	90	4 7 0	ditto	58	6 8 0
ditto	89	7 15 0	ditto	46	8 17 0
ditto	88	5 10 0	ditto	39	3 18 0
ditto	80	5 2 6	ditto	32	8 8 6
ditto	75	4 14 6	Wheal Friendship	106	6 5 6
ditto	74	5 14 0	ditto	72	6 15 0
ditto	65	4 4 6	ditto	37	4 7 0
ditto	60	7 17 0	Fowey Consols	78	5 12 6
ditto	59	3 11 0	ditto	67	5 8 6
Wh. Fanny	98	6 15 6	ditto	36	5 9 0
ditto	95	6 8 0	Bedford United	84	6 8 0
ditto	92	6 8 0	ditto	62	4 17 0
ditto	83	5 16 0	Poldice	72	4 16 0
ditto	56	2 7 0	ditto	36	4 16 0
Wh. Maria	67	6 4 0	Wheal Jewel	20	4 16 0
ditto	31	9 11 0	Wheal Maiden	13	5 12 0
Wh. Anna Maria	94	5 8 0	Old Crinnis	9	2 11 0

TOTAL PRODUCE.

Devon Gt. Cons. Wheal Josiah } Wheal Maria } Wheal Fanny } Wh. Anna Maria	1635	£9212	12 0	Fowey Consols	181	£993	8 6
				Bedford United	146	838	6 0
				Poldice	108	518	8 0
				Wheal Jewel	20	96	0 0
				Wheal Maiden	13	72	16 0
West Caradon	303	2110	14 0	Old Crinnis	9	22	19 0
Wheal Friendship	215	1312	2 0				

Average Standard ..... £95 13 0 | Average Produce 8½
Average Price per ton £5 15 0
Quantity of Ore ..... 2630 tons | Quantity of Fine Copper, 233 tons 13 cwts.
Amount of Money £15,182 5 6
LAST SALE.—Average Standard ..... £99 1 0.—Average Produce 8½
Standard of corresponding sale last month, 95*l.* 6s.—Produce, 9¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal Company	81	£ 316 2 3
Vivian and Sons	269	1247 5 9
Freeman and Co.	320	1582 8 0
Grenfell and Sons	195	1049 1 0
Sims, Willyams, and Co.	460	2665 18 9
Williams, Foster, and Co.	1105	7198 14 6
Schneider and Co.	200	1091 15 3
Total tons	2630	£15,182 5 6

Copper ores for sale on Thursday next, at the Royal Hotel, Truro.—Mines and Parcels.—Perran St. George 668—Consolidated Mines 473—United Mines 466—Treviskey 386—Par Consols 246—South Caradon 227—South Tolgus 193—East Wheal Leisure 113—Treleigh Consols 92—Trethellan 75—Wheal Ellen 72—Wheal Henry 55—Wheal Clifford 51—Gonamena 48—Great Wheal Leisure 32.—Total, 3197 tons.

Copper ores for sale on Thursday week, at Whites Hotel, Pool.—Mines and Parcels.—Tincroft 680—Wheal Seton 603—North Pool 600—Wheal Basset 521—Camborne Vean 372—East Pool 291—East Wheal Crofty 287—Condurrow 279—South Wheal Frances 185—Fowey Consols 160—Dolcoath 141—North Roskear 89—Prideaux Wood 40—Pendarves Consols 33—Gustavus Mines 24—Wheal Elizabeth 20—Carthew Consols 19—Wheal Penhale 12—Wheal Harriet 11.—Total, 4367 tons.

COMPARATIVE AVERAGES OF THE WEEKLY SALES OF COPPER ORES FOR NINE YEARS, TO THE THIRD SALE FOR SEPTEMBER, 1851.

Years.	*Tons.*	*Produce.*	*Amount.*	*Standard.*	*Cop. Ore.*	*Price Cake Cop*
1842	4120	7½	£24,961 13 6	£112 16	£74 10	£86–88
1843	3268	7½	18,221 9 6	105 11	70 12	78–79
1844	2572	8½	14,084 3 6	101 17	67 16	84
1845	2954	9½	20,015 18 6	101 15	72 8	88½–91½
1846	2582	9½	15,565 14 6	91 1	62 10	88½–91½
1847	4049	8½	24,373 1 0	98 9	67 12	98–101
1848	2592	10½	15,065 15 6	81 5	55 3	79½
1849	2467	9½	16,475 3 0	99 17	70 14	84
1850	2670	9½	17,149 14 0	96 14	67 14	79½

NOTICES TO CORRESPONDENTS.

PEAT-CHAR (COAL) AS A MANURE.—SIR: It has been demonstrated that *charwood* absorbs gases and vapours with variable forces—the latter more energetically than the former, and the densest *charwoods* (charcoal, *vulgo dixit*) absorb more than the lighter ones; *e. g.* boxwood char, much more than dealwood char, and the act of pulverisation of the charwood destroys the faculty altogether. These, Sir, are "the known facts which crude theory has to assail." Peat *charcoal* is very nearly in the physical condition of *pulverisation*. In its unburnt state it is a firmly fibrous mass, nearly devoid of *porosity*, or at least that kind of porosity upon which the faculty of vapourous absorption and retention depends, and the act of "charking" still more destroys the remnant of organic porosity inherent in the turf or peat, and which once abounded in the roots and stems and leaf-ribs in their normal and fresh state. I will not be bold enough to assert that Mr. Jasper Rogers copied his notions of peat charcoal in its application as a manure, &c., from my published facts, but I opine that something like this could be substantiated by a comparison of the verbiage of his first publications on this subject in 1846 or 1847, with mine in 1845 and 1846. I have published the facts, that bone carbon possesses the property of absorbing and retaining ammonia and other vapours in a high degree, even when in the *pulverised state*; and my conviction is, that Mr. Rogers and others of the peat school have copied these notions, and applied them to their respective hobbies, *without examination, and fictitiously*. It will be found that Dr. Anderson's *dogma* in the *Mining Journal*, Sept. 6, 1851, *is not far from the fact, if not actually* THE FACT. The facts that I gave to the public in June, 1845, as being the properties of *animal charcoal*, cannot be claimed for wood, and especially peat charcoal, for the reasons given above. Some of them, thus as published by me, in a prospectus of the "Central Gas Light and Manure Company," in 1846:—1. Animal charcoal augments the absorbent powers of the soil, by increasing its capillary porosity.—2. From its property of effecting the nascency of gases and vapours, it constitutes the soil a storehouse of fertility.—3. By its own oxydation and disintegration it supplies the phosphates to the roots in the soil, and carbon to the leaves of plants.—4. From its great power of absorbing vapours, liquids and gases, and effluvia of manures, it is a vegetable fertiliser of no ordinary capacity, and six other properties of like import. The Doctor says—"under ordinary circumstances;" and so say I—but I believe that peat-char may be made to perform these claimed and desirable agricultural functions in a sufficient degree in its mode of preparation. WM. RADLEY, Ch.E.
Brixton, Sept. 12.

We are requested to state that the name of Mr. J. J. Reynolds, of 23, Threadneedle-street, has been used without his consent, as the agent employed in the disposal of shares in Great Wheal Tonkin and Wheal Matilda.

"M. P."—The enquirer will be obliged by information respecting the best and most economical means of pumping at least 150 gallons of water per minute from mines about 70 yards deep, and where the apparatus may be seen?

"A Miner" (Redruth).—Mr. Whitburn's "Tables for the Use of Persons Employed in Mines," will be published in December: the volume will contain upwards of 300 pages—nearly all figures: the price to subscribers, 5*s.*; non-subscribers, 7*s.* 6*d.* Names can be addressed to our office, in London, or to the author, Liskeard.

"An Inquirer" is informed that the "Cost-book System" gives every shareholder the opportunity not only of always knowing who his co-partners are, but distinctly shows those who have paid their calls and those who have not—the resident shareholder, by attending in person the bi-monthly accounts, sees this for himself; the distant one has only to delegate his proxy to do the same; and in the absence of so doing, a polite request made to the purser ought, in every case, to bring the desired reply. Of course, the purser must make more frequent calls wherever any shareholder is allowed to stand in arrear; and merchants, or other creditors, can come upon any individual shareholder for the amount of their demand: he has his remedy afterwards by claiming contribution from the solvent shareholders. It is the Cost-book System (truly observed) that prevents shareholders being thus taken by surprise; the naked truth stares them in the face, if they only would be wise and look to their own interest.—See "Argus's" letter in our last Journal.

"C. P. C"—If our correspondent will state any mine now working that has, during the present term, paid dividends, we shall be quite ready to place it among those on our first list; those that have done so on former workings, and not the present, are not entitled to be there.

PHŒNIX MINES.—In answer to several correspondents, we have ascertained that this concern has paid two dividends already, and is now on the eve of declaring a third, but it is difficult to obtain information therefrom; the shareholders are not many, and they seem to prefer keeping the knowledge of dividends to themselves. If any one of them will enable us to fill up the blanks in our column respecting it, we shall feel obliged by their so doing.

"S. H." (Cornhill) will see that his correction was attended to in last week's Journal. Providence Mine is certainly cheap at 14,000*l.* for the mine, compared with some new "bals" that have recently started, and scarcely had a pick in them, quoted thus—

4096 shares, 1¼*l.* paid, price 9*l.*, or	£36,504
6000 shares, 2*l.* paid, price 4*l.*, or	24,000
1024 shares, 5*l.* paid, price 18*l.*, or	18,432
3000 shares, 2*l.* paid, price 10*l.*, or	30,000
4000 shares, 10*s.* paid, price 5*l.*, or	20,000

Providence Mine has paid back already in dividends 18*l.* 4*s.* 6*d.* per share to end of last month—is a regular dividend-paying mine, while the five above referred to have to make call upon call, and will take years to become, if they ever are, dividend-paying mines.

CARADON VALE MINE.—SIR: I should feel obliged if any of your correspondents would favour me with some information respecting the progress of this adventure.—ENQUIRER.

DEVON BURRA BURRA.—SIR: As a constant subscriber to your valuable Journal, and seeing frequent accounts of this apparently highly-favoured mine, I cannot understand how it is that it has never made its appearance among your list of mines, nor any account as to the value of shares, or where they can be obtained. Perhaps some of the parties interested will furnish the particulars.—AN ADVENTURER: *Sept.* 17.

RITCHIE'S IMPROVEMENTS IN LOCOMOTIVES.—We find that an unfavourable inference might be drawn from the concluding part of our article in last Saturday's Journal, as if the inventor could not use the steam expansively: we believe he has the means of cutting off the steam at almost any part of the stroke, and that too by a very simple valve, whose working does not interfere with the slide valve, nor does it encumber the gearing. We shall have some further particulars to publish shortly.

A correspondent, writing from Paris, wishes to ascertain some information respecting a company with a capital of two million francs, established by Royal Decree, in Lisbon, in 1843, for working mines of carbonate of green copper in Algarves, in Portugal, which is stated to be supported by English capitalists: and he inquires what is the value of the 40*l.* shares?—[Perhaps some of our correspondents may be enabled to afford the required particulars.]

"A. Z." (Lime-street).—The right of the Crown to mines in which gold and silver are found unaccompanied by other metals, as well as mixed with others, would, if a case should arise, be a matter of some doubt: such rights, however, as well as those to pre-emption, which still exist under certain circumstances, appear too remote and obsolete to be worthy discussion. We should be glad to receive a description of the invention referred to.

WHEAL MARY EMMA.—We have received a long communication from Capt. W. Heath, in which he details a series of complaints against the management of this mine. From Mr. Heath's statement, it would certainly appear that he has been treated with, at least, a want of consideration, and of that gentlemanly feeling which generally actuates directors in their correspondence and dealings with those engaged in conducting their operations. Mr. Heath, without intimation, has been discharged, and another captain appointed. On application to the purser for the arrears of his salary, he was, after some delay and prevarication, referred to the company's solicitor, who, after interviews and correspondence, now states that he has no instructions to pay—accompanied by the consoling information, that assistance can only be procured through the Court of Chancery, the captain being a shareholder! What makes the case appear still worse is, that, on the eve of his discharge, the committee visited the mine, and expressed themselves satisfied with its appearance. Capt. Heath, in referring to various reports since his leaving, makes some judicious observations respecting the mistaken policy of the Government in compelling us to omit all names from them. If one had been attached to that published in the Journal, dated May 24, wherein it is stated that "there is a large parcel of tin under the process of dressing, and will be ready for market shortly,"—an enquiry might be made, what has become of the proceeds?

WHEAL LOVEL.—SIR: In your "Notices to Correspondents," in last week's Journal, I observe that a correspondent has communicated that Wheal Lovel, on 8th August last, declared a dividend of 2*l.* per share, and that such dividend will make 8*l.* *per share in* TWO *years*. Now, as a recipient shareholder in that mine, I beg to state that I received my first dividend from it, of 2*l.* per share, in November, 1850; my second, of a like amount per share, in February, 1851; my third, of a like amount per share, in May, 1851; and my fourth, of a like amount per share, in August, 1851—consequently, the mine has paid to its shareholders in *one* year 8*l.* per share.—AN ORIGINAL SHAREHOLDER: *Sept.* 18.

GOLD IN SOUTH AUSTRALIA.—We have frequently published notices of the existence of gold in the colony. Our correspondent also informs us that he is perfectly acquainted with its exact locality, and will communicate with any responsible parties who may address him on the subject.

ANGLO-CALIFORNIAN GOLD MINING ASSOCIATION.—The several communications and remarks having reference to this company are necessarily deferred from their length; and, moreover, being in communication with parties on whom we consider every reliance can be placed.

Mr. Hopkins is yet in London, having been detained by pressing business: he will, however, leave in a few days;—in the meantime letters may be addressed to his office.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, SEPTEMBER 20, 1851.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

As might naturally be expected, the rapid extension of mining operations throughout the kingdom is leading to the formation of new establishments for the conversion of the various ores into metal, and for other purposes connected therewith, in order to keep pace with the increased production of copper, tin, and lead, which may be looked for from the numerous recent additions to the means of development of our mineral wealth. Two proposed undertakings of this character have just come to our knowledge—one for the extraction and perfect separation of the various elements constituting the ores of copper—the other for the smelting of tin ores.

With reference to the first-named of these proposed measures, we may observe, that it has long been a matter of deep consideration with those engaged in the smelting of copper ores, how most effectually to accomplish two objects; first, to get rid of the deleterious effects resulting from the conversion into vapour, in the process of smelting, of the sulphurous and other injurious bodies which constitute so large a per centage of the copper ores of this country, and of those imported from some parts of the world, now contributing to our supplies of that metal; and, secondly, to obtain more effectually than has hitherto been done, the various components of those ores. By a document now before us, it would seem to be the intention of the patentee (for the project is made the subject of a patent, and is proposed to be carried out by a company), to bring the ores to a state admitting of their being, by chemical agencies, reduced to their primitive elements, distinctly separable into each, in their respective existing proportions. It appears, according to the statements in this document, that the sulphurous matter, now wasted in a shape highly prejudicial to animal and vegetable life, can be converted into a merchantable product of large consumption, and that certain valuable alkaline bodies may be obtained by proposed combinations; whilst the more solid products will be absorbed into their principal element—copper—and the proportions of other metallic bodies co-existent in the ores, including silver, which, it would appear, is contained in some copper ores in no inconsiderable quantity, will be fully compensatory for the cost and labour of the process of extraction. We are aware that, for some time past, and with a certain amount of success, attempts have been made to separate the silver known to exist in many of the ores of copper; but it may be somewhat doubtful whether, from the processes resorted to, the products have not been obtained at the cost of more than a guinea for every pound's worth of the precious metal produced. The proposed undertaking appears to have been proved in practice upon a smaller scale than that now submitted; and if accomplishable in the manner suggested—and the known chemical talent of the projector is favourable to such a conclusion—it must cause a material change, almost amounting to revolution, in the mode of treating copper ores hereafter.

The second undertaking above alluded to—the smelting of tin ores—is of a much more simple character. There is, doubtless, ample scope for additional works in this known profitable branch of our metallic trade; and the proposed new company, calling themselves the "Truro Tin Smelting Company," would seem to stand possessed, under judicious management, of every chance of substantial success. They put forward the intention of conducting their business with a capital of sufficient amount; and as they state that they have secured smelting-works, ready for active operations, the latest erected in the county of Cornwall, and constructed on the most approved principle, at a moderate rental—thus avoiding the expenditure of a large amount of capital and loss of time in the erection of new works—they consider that they enter upon their undertaking on very advantageous terms. The number of tin mines recently opened, taken in conjunction with the manifestly increasing consumption of that useful metal throughout the world, stamps the undertaking in question with a perfect character of legitimacy—divested of that spirit of speculation frequently allied to measures of this nature.

The important part which central America will certainly be called upon to play in the commercial history of the world renders everything connected with that little district—little, that is, in comparison with the two great continents which soar away north and south of it—of deep and permanent interest to the world at large. Attractive as the subject is, it is not our present purpose to enter into an extended enumeration of the capabilities of the lands now before us. In general they are well wooded, and filled with a somewhat rank and luxuriant vegetation. Lakes, streams, and rivers are in motion whichever way you look, though the sight of their dashing waters is often interrupted by the interposition of mountains and volcanic ridges. It is not, as a whole, considered favourable to health, and the general character of its vegetation rather points to the conclusion that it cannot be; but this admits of considerable amelioration, by a liberal clearing away of its forest growth. The population, which is black, mixed, and European Spanish, is not numerous, nor in any sense remarkable for intelligence or industry. Nevertheless, Honduras sends out its fine mahogany, Porto Rica its sugar and coffee, Nicaragua its indigo, cotton, and cocoa, San Salvador its indigo, ginger, and vanilla, and Guatemada its tobacco, cochineal, and pearls. There is a gathering in, therefore, more or less throughout the year, in each state of its characteristic harvest, and whether their labours are directed to this or that description of produce, the actual field work done in central America cannot be light, nor much below, if below at all, the ordinary proportion. But we have reason to believe that the most important part of the treasure of this district is lower down than the surface. The geological character of the whole area, no less than the prevalent traditions of the country, inevitably lead to the conclusion that gold, silver, and iron are largely deposited between its primary and its superficial strata. In proportion as the district becomes better known, and its resources are opened to the practical ingenuity of European minds, will the value of this new theatre command the attention and insure the activity of our men of wealth and enterprise. Perhaps the very greatest want of central America is a free and an industrious population, but it wants also a liberal introduction of the economical and practical arts; and when it shall form the beaten pathway of the commerce of the capacious and rising states of the south-west, as well as of the older and riper European communities, its resources will receive their full and perfect development. Among these, the production of its mineral riches will at least have a secondary place in the sumptuous catalogue of its wealth; but until industry and the arts may be counted among the settled virtues of central America it cannot aspire to the rank to which its geographical position and its physical endowments give it a just and an indisputable claim.

The cause Capt. W. H. VERRAN *v.* Mr. T. CAMPLIN, of London, occupied seven hours at the late County Court meeting, at Truro. The plaintiff was managing captain of East Wheal Fortune, in Bissoe, and sued defendant as an adventurer in that mine for 50*l.*, for salary, money expended for small supplies, and expenses to London on the mine being abandoned, to endeavour to get a settlement of his demand. Mr. CHILCOTT, for plaintiff, produced the cost-book, in which defendant's name appeared as an adventurer, signed as such in three places, also a letter from him to plaintiff in reference to the mine, calling plaintiff into the witness box to prove that the letter was in defendant's own handwriting, and that the mine had stopped in consequence of the failure of the purser in London, Mr. CARY, who was a large shareholder. On this occurring, plaintiff proceeded to town to see some of the adventurers, among whom he met CAMPLIN, the defendant, saw him write a cheque, and received from him his address where to call upon him next day. From these instances he was enabled to swear to defendant's handwriting on the cost-book, &c.; he had also written letters to, and received answers from him. The next witness was Mrs. CARBIS, of Cross-lanes, near Chacewater, who stated that in August last two persons called at her house, and asked the way to East Wheal Fortune, one of whom talked to her about the mine, and said he held "30 shares in it." On referring to the cost-book it was found that no shareholder at that period held such a number except Mr. T. CAMPLIN. Mrs. CARBIS swore that she conducted the parties to the dwelling of Mrs. FRANCIS, whose husband was an agent in the same mine. Mrs. FRANCIS immediately knew one of them to be Capt. PAUL RABEY, of Wheal Seton, and heard him address the other as Mr. CAMPLIN. The cost-book proved the salary to be 6*l.* 6*s.* per month, and the other payments, which plaintiff swore to himself, thus making out his case. Mr. HOCKIN, for defendant, among a variety of objections, contended that the evidence was not sufficient to show that the Mr. CAMPLIN sued was the one whose name appeared upon the cost-book, or that he was the individual holding an interest in East Wheal Fortune. His HONOUR thought otherwise, and gave judgment accordingly for 35*l.* 15*s.*, observing that he could not allow the plaintiff's expenses to London, that having been undertaken partly for his own benefit. Mr. CAMPLIN has now the power to sue his solvent co-partners for contribution: they can have no defence, and the law will compel them to contribute proportionately to the respective number of their shares.

In a short period the GOVERNMENT SCHOOL OF MINES, connected with the Museum of Practical Geology, will commence its career of usefulness. Such an institution has long been wanted, and we hail its formation, under the present able directorship of Sir H. DE LA BECHE, with feelings of unmingled satisfaction, and trust that it will fully attain the objects for which it has been created—that of giving a scientific education to the practical miner. Its sphere of utility we trust, from its working, will be so appreciated, that from the parent establishment branch seminaries will emanate, to be located in the several mining districts of the country.

That a governing institution should be formed in the metropolis is, no doubt, a wise policy, but it is singularly unfortunate that the counties round the capital are so destitute of those geological features that are indispensible to mining. The professors appointed are all men of celebrity in the scientific world, but we think a little practical blood infused in the body would have improved the system. The fee for two years is 30*l.*, or 20*l.* for each session; occasional students at an *ad valorem* charge: the laboratory to be open on payment of 15*l.* each session. The cheapest rate that the working miner can, therefore, obtain a scientific education is 45*l.*; not considering his expenses in the metropolis for five months annually. We apprehend that, at this high scale, there are but few of our practical men who are able to avail themselves of the advantages held out to them. Officers of the army and navy, either in the Queen's or East India Company's service are admitted to the lecture at half the usual charges. We are at a loss to conceive why this destinction should be drawn, as they, in our opinion, are the persons who are most able to pay. We have been acknowledged by all to be the best practical miners in the world: the works executed in England and abroad have excited the admiration of foreigners. Where Germans and others have failed, after using all the resources of science, Anglo-Saxon energy has prevailed. We shall in another article, more in detail, particularise the scale of charges at the continental schools, together with the system of education pursued there. In the meantime, we trust that our School of Mines in this enlightened age will have a view to utilitarianism, and not allow itself to be bound by the conventualities and technicalities of science which fetter mining in Germany, and render its good effects in many instances nugatory for all practical purposes.

Having in the two preceding weeks given ample notices of the gold discovery in Australia, we have now only to record the receipt of nine days later intelligence, up to the 11th June, received by the Overland Mail, by which it appears Government has caused the following proclamation to be issued:—

As according to law all gold mines, and all gold in its beds, within the territory of New South Wales, whether in and upon the lands of the Queen, or upon the lands of private individuals, her MAJESTY'S subjects, are and is the property of the Crown; and Government having received information that there is gold in and upon the territory of the county of Bathurst, and, therefore, within the Government or territory aforesaid, and that a number of persons have commenced searching, or intend to commence searching and digging for gold on their own account, and for their own use, without having obtained permission from her MAJESTY, or from any other authority for that purpose. Therefore, I, Sir C. A. FITZROY, the aforesaid captain-general, do hereby make publicly known and declare on behalf of her MAJESTY that every person who shall take gold or metal from any property within the aforesaid territory, and any person finding gold in the uninhabited parts of the said territory which has not yet been disposed of, or ceded by the Crown, or shall search or dig for gold in and upon such territory, will be punished according to law. And I further publicly make known by this proclamation, and declare that upon the receipt of further information upon this matter, such regulations shall be made as may be considered just and decisive, and shall be published as soon as possible, whereby the conditions will be made known, on which by the payment of a reasonable sum, licenses shall be granted.

The opinion we have already expressed is confirmed—that the gold mania appears to be affecting all the industrial pursuits of the colony. People from all parts are flocking to Bathurst: upwards of 7000 being concentrated there already. Five vessels have been laid on at Melbourne to convey passengers to the "diggings," causing much alarm—fearing that the shepherds and stockmen may desert their charge, and thereby risk the loss of the flocks it is their duty to protect. This would prove ruinous to a vast number of industrious persons; and the men are not at all adapted, should they be rash enough to go. The work is heavy, and little suited to the taste of those who have been prowling about after sheep from their childhood; and if they knew the arduous task they would have to gain an uncertain livelihood, would never leave the quiet life they have been used to, to encounter the danger that in all shapes would beset them on such a venture. Having already given all the reliable news, we shall anxiously await the receipt of authenticated statements from our correspondent in the colony, of which we are in full expectation before our next Journal.

It appears that, at Bathurst, notwithstanding the diggings, labouring men may be hired there at 5*s.* per week and rations; as many, from want of sufficient provisions and other causes, fail at the diggings, and fall back on Bathurst for employment. In addition to the gold, some interest has been excited by the discovery of emery, which has been found abundantly by Mr. H. LOCKYER, on the estate of his father, Major LOCKYER, at Marulan.

A most disastrous flood has occurred at Adelaide—destroying not only the hopes of the agriculturalist, but for a time suspending operations at the Burra Burra and other mines.

In the MINING JOURNAL of 9th Nov. last we inserted an extract from a letter written by a party in South Australia to a friend in Cornwall, to the effect that colonial mining labour was exceedingly scarce, that no importation of miners would be too great, that they would find immediate and constant employment at good wages, and that from six to ten experienced mining captains would get immediate situations at from three to four guineas per week. Also, that if the names of some good men were sent to the writer he would send out means for a free passage. This letter certainly did at the moment appear to us to contain some contradictions and incongruities, incompatible with a knowledge of mining, either here or in the colonies. In the *Adelaide Observer* of 29th March last the subject is taken up by a Cornish miner there, under the signature of "Tre-Pol-Pen" (who appears to be an old correspondent of our own), in which he endeavours to show that the writer is no miner, but some interested party, either as agent or otherwise, who would gain by the introduction of miners, probably by the still further lowering of wages. He assures us the situation in the colony, as regards the miner, compared with other classes, is anything but satisfactory; the perhaps aged tributer is often degraded in his own idea by being placed at other employment, or taking from him his pitch and setting him to tutwork, the latter, which has been the cause in a great measure of the excellence of the Cornish miner, being to a great extent discountenanced, and tutwork and scales of fixed wages have in most cases supplanted it. Attracted by invitations and representations such as those alluded to above, the mining population at present far outnumbers its necessities, and thus, in every conceivable occupation of colonial life, maritime, commercial, and agricultural, its members will be found working for a scale of remuneration scarcely adequate to decent subsistence. Notorious, he says, is the redundancy of the mining population, nor does any immediate improvement appear at all probable; abandonment, rather, seems to mark the mining history of the colony. The miners of Cornwall are cautioned not to be deceived; they have no business there just now; but when times have altered, when capital becomes commensurate with the importance of the field of operations, and designed for the development of the resources of the colony, rich, undoubtedly, in mineral wealth but yet unexplored; when legitimate mining shall have materially expanded the requirements of the labour market, always attainable, they are then told to cast their glance to the antipodes, and not to hesitate to hasten to the green fields of mala-

chite and prosperity, in which they may participate. There is also in that letter an attack on the competency of the present agents in the colony, which is warmly replied to by "Tre-Pol-Pen;" and we think the latter writer's remarks offer a tolerably correct view of the present condition of mine employment in the colony.

Another communication from the same writer appears in the *South Australian Register*, in which he admits while he has shown the excess of mining labour, that circumstance has no reference to the intrinsic mining merits or mineral riches of the colony, which are disseminated over its whole surface in indications as numerous as they are unmistakable. Yet, with the exception of the Burra Burra and two or three others, there is no spirit shown essential to success, nor can any real underground workings be said to exist. The cause of this is the want of capital; while independence and great wealth have been obtained there, unprecedented in any other countries, lands and flocks, agriculture and commerce, buildings and trade, all offer as certain and profitable investments, and more than absorb the capital the colony actually commands. Little, therefore, is left for mining, and that little is frequently misapplied. Besides, there is such a gross misconception on the part of colonial mine shareholders as to the nature of mining, that it defeats the chance of success. They imagine that they have but to obtain the land to realise, mushroom-like, without scarcely search or outlay, all the dividends of the Burra Burra.

MINING ENTERPRISE—ITS PROGRESS AND PROSPECTS.

Our last Journal disposed of all those mines that had, during the quarter ending with June, sold *upwards* of 300*l.* worth of copper ore at the public ticketings. We now arrive at those of lesser growth—viz., *under* that amount, the first of which is Pendarves Consols, 340*l.* 12*s.* for 86 tons, being only 3*l.* 19*s.* 3d. per ton. This would appear to be about their average price; taking the sales for the whole twelve months, they disposed of 313 tons at 3*l.* 19*s.* 6d., value 1239*l.* 18*s.* 6d., so that the last quarter's amount is a trifle over the preceading three. The concern is still in its infancy, not having been three years at work; we are, however, at a loss to account for the depreciated value of the ore this, compared with the last working, for at the ticketing held at Redruth on the 10th of July, 1777, Wheal Cherry and Roskear (part of the ground) yielded ore that then realised 7*l.* 15*s.*, 12*l.* 4*s.* 6d., and 14*l.* 5*s.* per ton. We should judge that the present workings are at a deeper level than formerly, but we have not the facts to refer to, unfortunately, this being one of the mines standing upon our list without any reports or statements—in fact, we doubt the price quoted (3*l.* 10*s.* per share paid up) being the actual amount paid; therefore shall be ready to insert such particulars as we may be favoured with.

Wheal Ellen (formerly part of the celebrated and rich Wheal Music), in St. Agnes and Illogan, adjoining the Tywarnhayle Mines on the south, and like them not working to any profit, was commenced working about 35 years ago by the late John and Matthew Moyle, Esqrs., whose agent, Capt. Oates, of Rose-in-Vale, was the manager. By means of water-power they realised very considerable profit, and in a very short period of time. The ore was mostly in small branches, malleable, and exceedingly rich, but so numerous and minute were they that some were found not worthy of following. The idea then entered the head of Capt. Oates that it would pay well to open-cut from surface, which he accordingly carried into practice, employing every mule and donkey in St. Agnes, and, as an old acquaintance of his used to say, "he turned the world upside down," for he made a deep pit, called by the miners "The Devil's Punch-bowl." It was found, however, too expensive; the orey strings that were left would not pay, after all the best deposit had been taken away: it was, therefore, shut up; when Mr. Humphrey Willyams, the present M.P. for Truro (part lord of the soil), with a large party of gentlemen from thence, joined the late Capt. Thomas Teague in putting up a 70-inch cylinder steam-engine, to give the entire sett, south, west, and east, an effectual trial. This also proved unsuccessful; the engine was sold and removed after a very considerable loss, and then they commenced making profits, which continued till about a year back. The yearly returns, from 30th June, 1847, were—

	Copper ore.		Amount.		Av. per ton.
1848	*Tons* 650		£4238 13 0		£6 10 6
1849	564		3256 6 6		5 16 6
1850	322		1866 17 0		5 16 0
1851	432		2677 14 0		6 4 0

The quality is rather improved; but the quantity is falling short again.

Hingston Downs is decidedly an improving mine, during the last quarter selling 27 tons of copper ore for 243*l.*, say 9*l.* per ton; this month they will sample 80 tons of it. The mine is 55 fms. deep, that level being only extended from 6 to 7 fms., the lode, which is 10 ft. wide, yielding on an average 6 tons of copper ore per fm.; the eastern end turning out about 8 tons, and is driving at a tribute of 4*s.* in 1*l.* This must be a fine course of ore, and when extended far enough to leave ground for stoping, the returns cannot fail being considerably augmented.

St. Aubyn and Grylls, in 1024 shares, 3*l.* per share paid up. Though we are informed calls have been made that we are not aware of, this is one of those mines from which we receive no sort of intelligence, except now and then, when a meeting is held and a call made. The number of shares prevents it being considered a private undertaking, and as they are quoted upon our list, we think the shareholders residing at a distance from the mine are entitled, through our means, to learn monthly what the prospects are. The copper ore sold in the last quarter was 38 tons, value 222*l.* 14*s.*, average 5*l.* 17*s.* 3d. per ton. Since which 10 tons have realised 122*l.* 11*s.*; average, 6*l.* 9*s.*—proving the ore to be of good quality.

Gonamena Copper Mine, St. Cleer, has expended about 13,000*l.*, and is 104 fms. below the adit on Dunstan's lode, shortly expecting to cut Gilpin's. The copper ore sold during the last quarter was 30 tons at 7*l.* 4*s.* = 216*l.* They have now 50 tons ready, worth about 7*l.* per ton, showing a very evident improvement. We wish them every success. Hawk's Point Copper Mine, in Uny Lelant, upon an outlay of 4500*l.*, for the 12 months ending with June, sold 89 tons of copper ore, at 3*l.* 8*s.* per ton = 303*l.* 7*s.* 6d.—one half of which was in the last quarter, and on the 7th of August 47 tons, at 3*l.* 5*s.* = 152*l.* 16*s.*, showing a considerable increase of produce in the last half-year, though much of the same low average quality. This is all the particulars we can collect for the last four months; and as doubtless they have in that period held an account-day meeting, we shall be ready to insert the same when favoured therewith, and hope to learn they have met with a more remunerative lode, yielding ore of higher price, which would certainly be an inducement for them to prosecute the mine to a deeper level than it has hitherto been wrought at.

West Alfred Consols started within the last two years, and have called 8*l.* 10*s.* each on 1024 shares, to give the concern an effectual trial in depth—the local situation being sufficient recommendation to the spirited individuals who undertook it. Parties, however, were soon found ready to give any premium that was demanded, fully expecting to see the shares upon an equality with their rich neighbour—the Great Wheal Alfred. The consequence of which was, when only 5*l.* per share had been paid, they were eagerly caught up at 12*l.* 10*s.* in Dec. last; in March they were 25*l.* In May, 7*l.* 10*s.* paid, they were 20*l.*, with considerable demand for them. In June, 18*l.*; July, 17*l.* August lowered them to about 15*l.*; and they are now quoted 13*l.* to 14*l.* each. The only sales of copper ore have been 37 tons, at 4*l.* 3*s.* = 153*l.* 11*s.*, to the end of June; and on the 11th inst., 53 at 3*l.* 13*s.* = 193*l.* 9*s.* The ore is of low quality, less than half the value per ton of their rich neighbour. They must have time to explore deeper. More money and perseverance will be necessary before any great produce ought reasonably to be expected. Give the mine fair play, and we doubt not the result will answer expectation.

Bodmin Wheal Mary went to work about six years ago, and has expended between 8000*l.* and 9000*l.* There are nine distinct lodes in the sett, all underlaying north. The engine-shaft is well placed for effectually trying most of them in depth, seven of them being south of the engine-shaft, which is down to a 30 fm. level. The stratum is exceedingly favourable for copper ore—a beautiful white killas, near soft elvan courses, 3 to 4 fms. wide, underlaying south. Several of the lodes will intersect each other at deeper levels. One of them is a caunter, passing through all the lodes in the western part of the sett. The machinery is in good working order, and a cross-cut driven south, to intersect several lodes of promise. No. 6 has just been cut in the 10 and 30 fathom levels, being 4 ft. wide—peach, spar, and yellow ore disseminated throughout, all fit for the dressing floors. Levels east and west are just commenced, and the shaft set to sink with all possible speed. In the 10 the lode consists mostly of gossan, with small portions of grey and black copper ore—such a lode as we have often heard old miners in the west say they "would venture the shirt off their back" for. Had half the time and money been expended in sinking the shaft down, instead of trifling with the levels and cross-cuts above at such shallow depths, by this time the mine would have been opened to the 100 fm. level, and most of the lodes seen and proved. According to expectations formed by parties competent to judge, the probability is they would now be sharing dividends, instead of having the work upon their hands still to perform. Great perseverance is needed in this flattering spot, where every indication is good, and such as the most talented miner cannot find a fault with. Had it been in the Tavistock district, at this moment shares would be "cooked up" to five times the present market value, and more working of shares than levels be the consequence. For the last year, ending June, they sold 88 tons of copper ore, at 3*l.* 10*s.* 6d. = 310*l.*, one-half of which was during the last quarter; and on the 7th August they sold 30 tons, at 3*l.* 18*s.* = 117*l.*, showing an improved quality as well as quantity; but the one thing needful is perseverance in depth, and the sooner there the less expense it will be to all concerned. They have played the shallow level game long enough, and to their cost.

[*To be continued in next week's Mining Journal.*]

IRON AND COALMASTERS' PRIZES.

We are glad to announce that an association has been formed among the iron and coalmasters of South Staffordshire, for the establishment of annual prizes in the National Schools connected with the mining population; and that the following regulations have been adopted, subject to such amendment as further experience may suggest:—

The examinations will be conducted by the Rev. J. P. Norris, her Majesty's Inspector of Schools, in the months of February and March each year, at the same time and in the same manner as the examinations for pupil-teacherships.

Candidates are to be boys of not less than eleven years of age,—with a preference to such as may be older.

They must have been at least two years in attendance at their respective schools.

These schools must be under Government inspection.

Those who may have already obtained pupil-teacherships will not be admitted as competitors.

The minimum standard of attainment will be—Reading fluently from the first-class reading-book; writing correctly from dictation from ditto: the first four rules of arithmetic, simple and compound; general conduct and progress in religious knowledge being also ascertained to be satisfactory.

The examination for the first prize will extend to the higher rules of arithmetic and mensuration, and include a short essay on some subject connected with the geography or trade of the district.

The number of prizes allowed in each school will depend on the size and character of the school, and also on the number of candidates presented for examination. A tolerably good school of 100 boys may hope to obtain one prize of 4*l.*, one prize of 3*l.*, and an additional sum of 1*l.* to be divided or given in books, at the discretion of her Majesty's inspector.

If any school should fail to produce candidates of the minimum standard of attainment, the inspector may transfer the amount of prize-money which might have been gained by that school to any other school furnishing more than its proportion of qualified candidates.

A list of schools, from which candidates will be admissible, is being prepared by H. Seymour Tremenheere, Esq. (who originated the scheme), the Rev. J. P. Norris, and Walter Williams, Jun., Esq. (the hon. secretary of the association), who will communicate with the managers of the several schools respecting the time and place of examination.

IMPROVEMENTS IN IRON MANUFACTURE.

We have received the following statement, which shows the successful working of Mr. Plant's process of puddling iron,—notices of which have repeatedly appeared in our Journal:—

WEEK ENDING 23D AUGUST, 1851.

	Puddled Bars produced.			Coal used.		Coal used per ton of bar-iron.		
	Tons cwt. qrs. lbs.			*Tons cwt.*		*Cwt. qrs. lbs.*		
No. 1 furnace, working with Mr. Plant's patent	22	0	3	3	11 4	10	0	22
No. 9 furnace, worked by the ordinary mode	14	4	0	0	11 5	15	3	10

Both No. 1 and No. 9 furnaces were boiling pig-iron of the same description; the yield of iron at both furnaces was about the same, but the quality of puddled bar produced from No. 1 furnace was rather superior to that from No. 9. Last week's work is a fair average.—CHARLES J. HAMPTON, Manager: *Llynvi Iron-Works, Glamorganshire, Aug. 25.*

WETTERSTEDT'S PATENT METAL.

This metal having (as the readers of the *Mining Journal* will have observed) been for some time added to our "Price Current," many inquiries have consequently been made respecting it, and we have, therefore, pleasure in giving insertion to the following descriptive statement, which we have received from the manufacturers:—

The combination of this metal is peculiar, giving it the properties of great tenacity, malleability, elasticity, and durability, also preventing corrosion or decomposition. It is unaffected by changes of temperature, and is, therefore, not liable to pucker or crack from the effects of exposure to the heat of the sun. Its lightness and malleability cause it to be particularly adapted for roofing purposes. It is used only 1½ lbs. to 2 lbs. and 3 lbs. per foot superficial, rendering much less expensive framing necessary to support it than either lead, slates, or tiles, and its malleable qualities admit of its being easily wrought into any form which the angles of a roof may require; and if the edges are carefully lapped together, the covering will be perfectly water tight without solder, which, however, may be applied as an additional security, if thought desirable. It is peculiarly suited to circular roofs, domes, cupolas, verandas, flats, &c. Also as a substitute for lead, for listings, and a variety of other purposes in ship building. It is made in sheets from 8 ft. to 9 ft. long, by 2 ft. 6 in. to 3 ft. wide, and 1½ lbs. 2 lbs., and 3 lbs. per ft. superficial. Many large public and private buildings might be mentioned to which the metal has been successfully applied—viz., Polytechnic Institution, London, Athenæum, Manchester, several railway stations on the North-Western and other lines, &c. A large flat was laid upon a gentleman's house about 17 years ago, and the manufacturers have the assurance of the party who laid it, and has since had it under his superintendence, that it has never yet required repair.

The Ivy Tor Mine case was concluded at the Plymouth County Court, on Tuesday, when Mr. Praed gave judgment for the plaintiffs.—His Honour said the defendant was an adventurer, and responsible for the amount due. The first answer given by the defendant was that the money had been paid; that certainly failed. It was then contended that a release had been given himself and brother-adventurers; and also that an action had been brought without the consent of all the parties concerned. The principal object of defendant appeared to be to throw discredit on the agents of the adventurers, who were authorised by them to give orders—that the work was not done according to contract, and that, therefore the money ought not to be paid. But it did appear clearly that the work had been done, and the money ought to have been paid. Under all the circumstances, therefore, he considered the judgment ought to be for the plaintiffs for the whole amount.

DISPUTED QUESTION AS TO RATING STONE DELFS.—At the Moot Hall, Wigan, the Bispham Delf Company were summoned by the overseers of Billinge Higher End for the amount of rates laid in that township. Mr. Ackerley appeared to support the summons, and Mr. Mayhew appeared for the defendants. Mr. Ackerley stated that on looking minutely into the law of the matter, he found that delfs which were worked as mines were not rateable. Mr. Mayhew and he had, therefore, arranged that the defendants should pay only one-half of the old rate; and that with respect to the other rate, which upon the face of it appeared to be levied upon the steam-engine merely, without reference to the working of the engine, but against which the defendants were too late to appeal, one-half of that also should be paid.—Mr. Mayhew stated that he considered it a fair arrangement. It was decided that each party should pay their own costs.—Mr. Ackerley said that there had been great doubt as to delfs worked as mines being rateable; and as it was unfair to the ratepayers of the townships in which those delfs were situated, that they should not contribute their proportion to the rates, he might state that he believed the farmers and other ratepayers, in those townships, were about to take such steps as would lead to an alteration in the law.

CAMBORNE AND ILLOGAN MINING DISTRICT MAP.—Desirous at all times of extending our aid to the encouragement of every labourer in the mining field, we have purchased a copy of the map of this most important district, lately published by Mr. R. Symons, of Truro. We think that a map of this kind, as a document for reference, is calculated to be of much service to all parties interested in any way in the district it represents—particularly landowners, adventurers, mine agents, and brokers; because it furnishes an amount of valuable information as to lodes, setts, &c., which could not be so well communicated through any other medium. There are about 50 setts comprised in this map, each distinctly coloured. The lodes *wrought* are represented by solid red lines, and those unwrought are shown by broken red lines. The cross-courses *ascertained* are shown by solid green lines, and those whose courses are only *supposed*, by a *broken* green line. The adits are marked blue, and the elvan courses brown. The boundary of the granite and of the clay-slate is also shown; the former by a red, and the latter by a purple tint. Every close, house, road, and stream appear in the map, within the extent of country embraced, which extends from Redruth town, on the east, to Praze, in the parish of Crowan, on the west. The map is neatly executed in lithography. We hope that an extensive sale of copies will be the reward of the author, which we think he richly merits for the labour and expense involved in the performance.

Original Correspondence.

CALLOW'S BLASTING POWDER.

SIR,—A temporary absence from home has prevented me from offering you at an earlier period the following remarks on this subject; but I now propose to send you one or two communications—differing, I regret to say, widely in spirit from those of nearly all of your correspondents, and I may add the favourable opinion you naturally enough begin to entertain on the merits and pretensions of this blasting powder yourself. I think it, however, a necessary preliminary to my observations to take a short retrospective glance at its progress through your columns, in order that your readers may arrive at a clearer apprehension of the qualities of the powder, its nature, composition, and effect, and that they at the same time may better understand the line of argument I shall adopt regarding it. I may also state here that, in any observations I have to make on this subject, I am actuated by no narrow and contemptible spirit of opposition to Mr. Callow. I am perfectly open—nay, will be glad to be convinced of my error; and, indeed, my object in writing on the subject at all is for the simple purpose of eliciting truth.

The first notice you give of Callow's blasting powder is contained in a report of Lord Ranelagh's experiments, in the *Mining Journal* of July 5th. On the 12th you refer to the subject in a remarkably judicious article, and publish at the same time the three specified combinations which constitute the basis of the patent right claimed by Messrs. Melville and Callow.

These combinations (which, however, it is expressly stated the patentees do not confine themselves to) I may as well repeat:—

No. 1. Chlorate of potash, 2 parts; sulphuret of arsenic, 1 part.

No. 2. Chlorate of potash, 5 parts; prussiate of potash, 1 part; sulphuret of arsenic, 2 parts.

No. 3. Chlorate of potash, 1 part; prussiate of potash, 1 part.

You then proceed to draw the attention of chemists to the subject; disclaim all intention of impeaching the sincerity of the patentees in their assurance of the excellence of their powder; comment on the poisonous nature of some of the ingredients, and finally invite a careful and dispassionate discussion in your columns of the whole question.

In accordance with this invitation we find (July 26) two letters on the subject. One from "A Pyrotechnist," who finds powder No. 1 "exceedingly dangerous and susceptible;" No. 2, "*cæterus paribus*, as safe as gunpowder," who begins his communication with describing his experiments on the same powder; and concludes by expressing a desire to know where it—that is, "the actual composition submitted to the public"—is to be purchased. Following this communication comes another from "J. A. B.," who writes under a sense of modesty in the highest degree commendable; repudiates anything like an extensive knowledge of chemistry, yet seems to understand the "hygrometric nature of certain saline solutions." Next comes the startling and painful announcement that Mr. Callow has had the misfortune to mutilate his hand by an accidental explosion to an extent involving amputation above the joints of the forefinger and thumb of one hand. I shall return to this. On the 2d August, Mr. Callow writes a letter to the effect that he had placed samples of his patent powder "in the hands of an eminent practical chemist for careful examination;" that his powders, Nos. 1 and 3, were not generally used, and were merely inserted in the specification for special purposes, and to conform with certain legal points. At length we arrive (Aug. 16th) at the report on the powder No. 2, by Mr. Dugald Campbell. As the consideration of this report properly belongs to the scientific part of the controversy, and since I intend noticing it on another occasion, I shall not in the meantime stay to examine it. I will, however, remark that Mr. Campbell, with the reserve which should invariably distinguish a great experimentalist, very properly observes:—"That his experiments were tried on a very small scale, as all laboratory experiments necessarily must be, and that this circumstance might render it advisable to extend the investigation beyond his sphere;" and so on. Following the report is the concluding observations of the "Pyrotechnist," who in his turn expresses a desire to see or hear of some physical experiments—that is to say, the amount of percussion, friction, abrasion, &c., that this powder will sustain.

On the 23d comes some one from Falmouth, under the initials of "G. C.," who puts a new physical question on the subject, and desires to be informed whether the practice of a certain mode of manipulation would not incite an explosive tendency in the charge. This individual is answered a week after by Mr. Callow, who finds out the true motives for asking the question ("G. C." is another powder manufacturer), takes up high grounds, demonstrates the impossibility of putting a one-inch cartridge down a half-inch hole, refers to the analysis, or report, as to the inocuous nature of the gases generated by the explosion; and states once for all "that it was not without due consideration of all these points, and elaborate experiments on every possible contingent risk and objection, that he undertook the responsibility of recommending this patent mining powder to the public."

Such, I believe, will be found to be an accurate, although condensed, *resumé* of the rise and progress of Callow's patent blasting powder as exhibited in the columns of the *Mining Journal*. Your own article of the 30th August, generously acknowledging that it had passed through the ordeal of public opinion unscathed, has, of course, only reference to the extent of the investigation. I must admit that I admire the spirit of thus publicly discussing the qualifications of an important invention, such as this professes to be; and I shall now briefly indicate the part I wish to take in the discussion; and I repeat that this will contain a conscientious expression of my own opinions, and that alone.

I purpose in the first instance, in the present communication, to question, if not deny all right of Mr. Callow to a patent, and in a subsequent one to comment on the chemical composition of the powder, the report on its merits by Mr. Campbell, and the letters of "A Pyrotechnist;" and although I may again take occasion to notice Mr. Callow's specification at greater length, I shall confine myself here to his powder No. 2; especially as the 1st and 3d compositions seem to have turned out, for all practical or commercial purposes, useless and ineffective.

In order that the validity of a patent may be maintained, it seems to be indispensable that the invention should, at least in some point, possess the merit of originality. The chlorate of potash, as an explosive agent, has long been known to chemists; and, indeed, since I can recollect, has been the favourite illustrative combustible in chemical schools. Mr. Callow admits this in his specification, and, consequently, can have no pretensions to a patent right in the use of this ingredient, and yet 5 parts out of 8 in his best mixture is composed of it. The application to this purpose of the next ingredient—the prussiate of potash—I apprehend is neither new nor original. I have not the copy of your Journal of the 16th March, 1850, where you extract from the *Swansea Herald* the numerous explosive admixtures formed with the chlorate of potash, and cannot, therefore, speak of these; but I can point to another publication, the *Chemical Gazette*, vol. 8, p. 198, where, under the head of "Chemistry applied to Arts and Manufactures," I find the following extract from the French journal, *Comptes Rendus*:—

ON A NEW KIND OF GUNPOWDER: BY M. AUGENDRE.—According to numerous experiments which the author has made, in order to prepare a gunpowder from the yellow prussiate of potash, the following proportions appear to be the most favourable for obtaining the greatest effect with the least residue:—Powdered crystallised yellow prussiate of potash, 1 part; white sugar, 1 part; chlorate of potash, 2 parts. The constituents are reduced to powder separately, and then mixed with the hand. In preparing large quantities the mixture is moistened with 2 or 3 per cent. of water, and pounded in a bronze mortar with a wooden pestle. This powder is white; it is fired with the greatest ease. It must be exceedingly dry for a violent blow of iron to explode it; friction between two polished bodies never produces this effect, nor does a blow of wood upon wood, or metal upon metal. This powder has the following advantages:—It is formed of determinate compositions, is unalterable by the action of dry or moist air, takes less time in its manufacture, has greater force than the ordinary gunpowder; but it has the disadvantage of oxidising iron barrels very much, so that its use is limited to bronze barrels and for filling hollow projectiles"—(*query*, or blasting?)

Like Mr. Callow, the author describes an accident which occurred to him. On triturating a few granules of ordinary gunpowder, together with a quantity of the prussiate powder, on the second or third turn of the pestle the whole mass exploded, with a noise like the report of a cannon. The mortar remained entire, but the author lost eyebrows and eyelashes, and remained for two days uncertain whether he should not lose his sight, as his eyes were unable to support the light.

I think we have sufficient grounds here for denying Mr. Callow's right to the second ingredient—the prussiate of potash; and were the considerations of time and research with me of minor importance, I think it would not be difficult to produce plenty of analogous compositions from the writings of continental chemists. There, it would seem, when a discovery is made likely to prove serviceable, perhaps, in preventing accidents or saving life, it is freely given to the world. In England, on the contrary, the highest thought, the noblest impulse, the benevolence, so as to speak, of certain kinds of chemical discovery, is to shroud itself in the musty parchments of the Petty Bag-office. The very word "*patent*" seems to

possess a secret charm, and the impress of Britannia's great seal bestows alike a lustrous decoration on an oscillating cylinder or a biscuit—on an explosive agent of tremendous power, or a vegetable pill!

I am not prepared to say that the third ingredient—the sulphuret of arsenic—is not entitled to the questionable merit of originality; but I leave the consideration of it to my next letter, with the suggestion, in the meantime, that M. Augendre's second ingredient of white sugar seems to me, *a priori*, to be less calculated to produce poisonous gases on explosion, or a compound so likely to be exploded by friction. To this ingredient, however, the powder is indebted for its red colour, and it remains to be seen the particular advantage resulting from this—its most prominent characteristics.

To conclude, I think it exceedingly apparent that the grounds on which Mr. Callow's patent is based, are indeed slender. With the exception, perhaps, of the red orpiment, I have controverted his right to either of the rest. He does not, it is true, confine himself to specific combinations, but we all know well enough the fallacy of loose specifications—their tendency to mislead, and, after all, their intrinsic worthlessness. I would have little hesitation, if I were a manufacturer (which I am not), of getting up a blasting powder closely analogous, and, at the same time, probably superior to Mr. Callow's, without much regard to his patent right; and were I a patent agent (which I am not), and applied to for a straightforward disinterested opinion on the matter, I would tell that gentleman to take his stand on his cartridges, his mode of manufacture, his machinery—anything—everything, but the composition of his powder. A. M.

Edinburgh, Sept 9.

CALLOW'S NEW BLASTING POWDER.

Sir,—Mr. Callow, in his letter, taxes me with being apparently angry in my remarks; I beg to assure him that I had not the shadow of an intention to be offensive, although I certainly now *think* he gave some slight grounds for such, in attacking my safety cartridges without knowing their properties. Put this aside, I am both open and willing to render every assistance in my humble power to benefit the miner and quarryman, and to protect both from the lamentable accidents that daily occur in the use of combustible matter. It is binding on us all to secure our fellow-creatures from such catastrophes, and I know of no reason why Mr. Callow will not co-operate; and if he finds, by further proof, that his powder is dangerous, no doubt he will throw it overboard, without considering pecuniary benefits. If his powder will really be beneficial, it ought also to be binding on the part of the mine authorities to countenance it, both for the sake of the working man and the adventurer; lessening the labour of the one, without decreasing his hard-earned wages, and saving cost to the other.

I have asked certain questions, which are not satisfactorily answered; therefore, further discussion will be useless till a final result is arrived at.

Referring to your own article, relative to the form of the bore, in point I fully agree, but it is well known any alteration or improvement is looked upon by the old school as an innovation on the customs of their "dads," and is designated a "*new fangle*." The size of the borer is seldom or never altered; but the size of the cartridge, or old fashioned bag, *must be made to suit the bit*, not the bit to the cartridge or bag. Induce people to alter their opinions (no small task), *then* advantages will tell in every shape to meet what should be the customs of 1851.

Diverging, I may be permitted to mention, there is a prevalent opinion that cartridges are not so effective as loose powder, and that the tighter powder is packed to the bottom of a hole the greater its force; this is a sad error, there being no room for expansion, and a third of the powder being thrown out without igniting; this is clearly proved by the unignited grains being forced into the hands and faces of those who have been so unfortunate as to meet with a premature explosion.

Serious accidents and disastrous loss of life have been experienced by fragments of stone being cast into the air in open blasting, as happened, for instance, a short time back at Holyhead. To guard against this, perhaps it may be worth the attention of Mr. Callow.

Pendennis, Falmouth, Sept. 14. GEORGE A. COPELAND.

FURNACE VENTILATION IN COAL MINES, AND THE HIGH-PRESSURE STEAM-JET.

Sir,—In your editorial remarks of last week, on the question of ventilation, you have quoted largely from Mr. E. Cayley and Prof. Hann, in favour of the high-pressure steam-jet. Admitting the theory of the natural brattice formed by furnace ventilation, and the fact of the increased resistance by the speed in the upcast shaft, up to a force equal to the force of buoyancy, in what way does the high-pressure steam-jet overcome these two physical impediments in the way of a perfect ventilating agent?

Sept. 9. A CONSTANT READER.

THE UNIVERSAL CONDENSING ENGINE.

Sir,—After the manner you have again seen fit to review my inventions, and to point attention to the real obstructions which have for so long a time prevented the public deriving from them those advantages which they are calculated to confer; and from the fair spirit of investigation manifested by Mr. David Mushet, and your other correspondents, I am encouraged even yet to hope that England does possess men who can and will vindicate the national character, by showing that the exclusive possession of the knowledge requisite to a right understanding and discriminating judgment as to the practical worth of mine or any other good invention is not confined to a body of men whose interests, combining with other feelings, render them most unfit persons to sit in judgment upon matters that so much affect the pecuniary interests and the general welfare of mankind. As you have justly remarked, the position and interests of men so situate present the strongest temptations it is possible to conceive to lead them to disregard the public good, in order to retain their own interest and reputation, and, consequently, to throw every possible obstacle in the way of all really comprehensive and good inventions, which have for their object the improvement of the steam-engine.

Animated by the hope that I do now discern symptoms that Englishmen will in this, as in other matters, assert and exercise the right of judging for themselves, I am thereby encouraged, and intend to set before your readers as soon as I possibly can, a brief outline—1. Of the principles upon which my improvements are based.—2. The means by which these principles are reduced to practice.—3. The efficiency, durablity, and simplicity of the means invented and practically carried out, by which these ends are accomplished.—4. The importance and value of the results which experiment and practice have already placed beyond the doubt of any rational man who is open to conviction—and 5. The advantages which, by an extended adoption, will as certainly result from these inventions as that two and two makes four. My inclination, no less than the demands upon your space, will determine me to compress my remarks into as small a compass as possible; but I must defer until next week entering upon the outline suggested, and shall conclude these remarks by observing that among the principles upon which these inventions are based, the most important is the expansive property of steam, as it is from it that the steam-engine derives its motive-power. Yet, strange to say, there are even at this day men who treat all attempts at gain in this way as the mere visions of what they *call* theory; such men seem not to be aware that the only cause of the power they obtain by their crude and extravagant mode of full pressure throughout the stroke arises from the very expansive property they deride. Another class, and they are *now* the most numerous and the best informed, and also of the most extensive practice, recognise the importance of using steam expansively; but they wish those who require steam-engines to believe that in their best engines the principle has attained its full development, its safest, simplest, and most compact form. These representations are natural, considering from whom they come; but, after all, the American who because his countrymen have cultivated some of the most accessible districts, should therefore conclude that they have fully developed the resources of the American continent, would be as near the truth as are those who assert that our present marine practice, for instance, has fully developed, or exhausted the resources of steam, as a motive power for marine or any other purpose.

It has, therefore, been to render safe, practical, and universally available to the fullest extent, this expansive property of steam, that all my labours have been directed, and to accomplish which all my inventions are intended; and sure I am that whenever the competent and the impartial will take upon themselves to investigate the means produced, they will agree with me that I have been thoroughly successful; and Mr. David Mushet and others will find that, whilst my boiler possesses the recommendation of being an improved and more economical appliance for the *mere generation of the steam*, he and every other impartial person will find also that it has higher recommendations than can possibly be derived from such a source, in its adaptation for generating steam of great pressure with safety; as it is in the obtaining steam safely under high-pressure, and in all cases working such expansively, and exhausting it into a vacuum, that the great saving is to be effected, as for every 1 per cent. which can be effected in the *mere generation of the steam*, 10 per cent. can be effected by using it as indicated above. Hence, all I have *said, written*, or *done*, has been *mainly* directed to this point, but in attaining it, generative economy, compactness, lightness, large extent of heating surface, slow rate of combustion, and the enveloping all the hot parts of the boiler by the hot gases before they pass off to the chimney, so that no loss of heat is permitted, are among the practical additional advantages gained by the boiler.

Ranelagh Works, Thames Bank, Sept. 10. THOMAS CRADDOCK.

INDIA-RUBBER TYRES FOR DRIVING WHEELS OF LOCOMOTIVES.

Sir,—The question of the employment of India-rubber tyres on the wheels of railway carriages, but more especially on the driving wheels of locomotives, as a means of increasing their efficiency, and reducing the cost of maintenance of the carriages and permanent way, appears to me to be one well worthy the consideration of railway directors. From experiments I have made, I find that the adhesion or "grip" of India-rubber tyres on iron rails, when *dry*, is about *double*, and when *wet treble* that of iron tyres; on wooden rails it is still more. The traction, however, of the carriages is somewhat increased. At a speed of about 10 miles an hour the increase was about one-third. Whether it would be more or less at a higher speed I had not the means of determining. I, however, am inclined to think that, by the use of India-rubber tyres on the wheels of railway carriages their weight might be so reduced as to make the traction but little, if anything, more than it is at present. The springs and buffing apparatus, it appears to me, might with advantage be altogether dispensed with, the carriages made much lighter, and in lieu of being placed 3 or 4 ft. apart, coupled close or nearly close together, in such a manner as that the train should become, as it were, *one continuous flexible carriage*, incapable of that disagreeable and highly destructive oscillation which at present exists, and which, in addition to the damage it occasions to the carriages and railway, materially augments the traction of the train. I, therefore, conclude that, by the adoption of some such arrangement as that I have suggested, the traction of a railway train with India-rubber tyres would be no greater than at present.

If, then, as I think there is reason to believe, the traction of the trains would not be increased by the adoption of India-rubber tyres on the wheels of the carriages; and, having proved by actual experiment, that by its use on the driving wheels of locomotives the grip or adhesion would be trebled (for it may always be kept wet), it appears to me that the advantages to be secured by its use are very great. The cost of repairs of the railway and train, and likewise the locomotive engine, there cannot be a doubt would be very materially reduced, the rails would hardly be worn, except on the sides, by the flanges of the wheels, blows or violent shocks from the inequality of the rails could not occur, as the elasticity of the tyres would ensure their constant close contact with the rails, the difficulty of ascending inclines, from the insufficient grip of the driving-wheels, would be entirely avoided, and the efficiency of the locomotive being increased, the liability to accident from collisions, &c., would be thereby proportionately diminished; while, from the entire absence of the present intollerable noise of the iron wheels, and the oscillation of the carriages, the comfort of railway travelling would be so increased, as that instead of being, as it now is, a disagreable necessity, would become a pleasure, and be resorted to as a luxury by thousands who at present seldom or ever get into a railway carriage.—W. J.: *September* 17.

P.S. What has been said in regard to the increased adhesion or grip of India-rubber over iron tyres on railway locomotives, it appears to me will equally apply to *common road locomotives*, in which case the traction of the carriages would *not* be increased.

ARE WE TO HAVE A SUBSTANTIAL TELEGRAPHIC LINE BETWEEN ENGLAND AND FRANCE?

Sir,—Perhaps some of your numerous readers, or, at all events, some of the shareholders, would like to know something more than that there is to be laid down forthwith a telegraphic line between England and France.

Right glad should I be, as one of the people, to rise some fine or stormy morning, and hear of the complete success of the undertaking—that the Frenchmen, on a visit here to the World's Fair, are about to exchange salutes with their neighbours in Paris through that gossamer thread laid across the highway of fishes. But such I am afraid is not to be the case, after the vast outlay which is now being incurred. Your readers will probably recollect the first experimental trial, the success of which lasted but a few moments—four words only being passed by the electric current. What those words were I do not think any of the shareholders had them sufficiently impressed on their imagination (memory, perhaps, I ought to say) to recollect the same ever having existed to the sight. In this experiment one single wire was used, coated with gutta percha, and the cost was 1600*l.*, being at the rate of 400*l.* per word. Now we are to have a second experimental line laid down, and that at an enormous cost—I say enormous, because it will cost more than a permanently secure line. Why not do the thing properly?—means exist, and the engineers that could carry a Britannia-bridge across the straits of Menai could lay a substantial telegraphic line across from England to France. There is now being made in the neighbourhood of Wapping this precious experimental line, with the stability and expense of which I find fault. In the first place, there is an outer coating of iron wire, at a cost of 66*l.* per ton, of which there will be required about 180 tons; then comes the gutta percha covered wires at 25*l.* per mile, of which there will be required 100 miles, as there is to be four wires of 25 miles each; and added to this is a coating of hemp, tar, grease, &c., together with the labour of 50 men, now at work upon the same day and night. The breaking strain of this material, when finished, will be from 6 to 8 tons only, and its weight per mile 6 tons. This fabric is making all in one length, about 25 miles. How it is to be coiled up for the purpose of transit I cannot conceive; and when once it is got safely on ship board, and a few miles of the same paid out, as the sailors term it, I predict that the outer coating of wires will stretch greater in proportion to the copper conducting wires inside, which is only bell-wire. The consequence will be that the said inside wires will snap off. I have had the same thing occur during my operations on the North-Western Railway, and also on the Great Southern and Western Railway in Ireland. In this form of electric conductors such accidents are not at all times to be guarded against, the more especially when they are subject to the jerks and tugs of a ship at sea, which will certainly lead to the complete failure of a second experimental line between England and France, at a cost of something like 16,000*l.* for materials.

Now, let us compare this to the cost of a substantial line which can be made and easily laid down—not in accordance with any plan of mine, as I have not a patent for electric conductors; neither am I interested in one, but one I have seen. Mr. R. Stephenson has seen it, as also Mr. Edwin Clarke—the talented engineer of the Electric Telegraph Company, and numerous other individuals of high scientific attainments. They all pronounce highly in its favour, and that the certain success of such a line, if laid down, is placed beyond a doubt—I allude to Messrs. Shepherd and Button's beautiful invention, which the originators of the submarine telegraph could have availed themselves of, if they had felt disposed so to do, and applied the capital to be laid out upon the experimental line towards paying for the more substantial mode; which consists of any ordinary ship's iron chain cable. In each of the four angles, which is formed by the links, an insulated copper wire is secured by clips, which wires may be coated with gutta percha; on the top of which the inventors lay a coating of some peculiar substance, which prevents the destruction of the gutta percha by those tiny marine creatures, the *teredo navilis*; and to prevent any chafing of the same against the links of the chain, wires are twisted around it.

Now, it must be obvious to any person who understands the construction of this conductor, that all the strain is taken wholly by the iron cable, leaving at all times the perfect freedom of the conductors. The breaking strain of a cable suitable for the purpose is 20 tons, and weight, per mile 10 tons. The same can be laid down in short lengths, there being arrangements at every mile for testing boxes, discoverable by buoys, held in connexion with chains, so that any repairs could be effected with ease in the midst of the ocean. This very complete conductor would cost, in the first place, 12*l.* 10*s.* per ton for the chain cable (of which there would be required only 20 miles, as it may be fearlessly taken over rocks, &c., whilst with the line about to be laid they require five miles more, they being afraid to trust it along the nearest route, because there is a few rocks in the road). In addition, the conducting wires and other contingencies will cost 145*l.* per mile, making the cost, including labour, something like 400*l.* per mile, while the experimental line will cost from 800*l.* to 1000*l.* per mile.

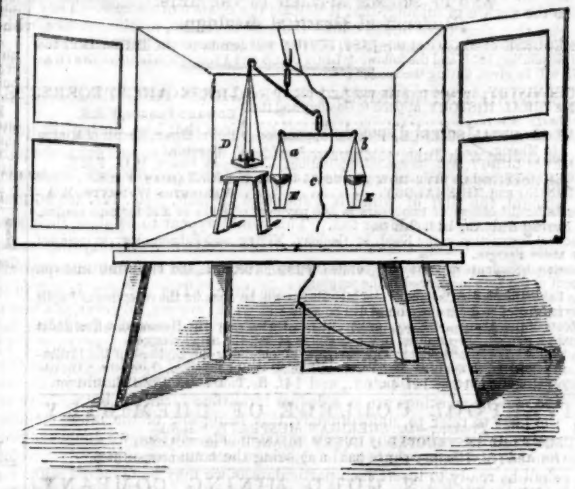
But I must stop; I fear I am intruding too much on your valuable columns, and therefore conclude by hoping that the experimental submarine electric telegraph between England and France may prove of some practical use. If not in passing words for a short time at a high rate, it may act as a lesson not to squander away so much money and valuable time on a third experimental line. GEORGE LITTLE, Electrical Engineer.

Commercial-road, Peckham.

ATMOSPHERIC INFLUENCES.—NEW SERIES—No. XI.

BY FRANKLIN COXWORTHY, AUTHOR OF "ELECTRICAL CONDITION."

Our previous observations having placed beyond all doubt the important fact that evaporation is not referable to "heat," and it being at last admitted that the hygrometer is an imperfect instrument, we shall now proceed to the consideration of another class of conditions also referable to the relative electrical states of the earth and the air, fraught with more important considerations to the sustenance and happiness of mankind than any subject that engages the attention of the philosopher; and it having been our peculiar good fortune to have invented an instrument which most beautifully and accurately defines these conditions, a description of it cannot fail in possessing much interest.



a,—Silken threads. *b*,—Fine copper wire.
c,—Stout copper wire, connecting the arrangement with the ground.
D,—Weights representing the total evaporation from both vessels.
E,—Small weight dishes, for the restoration of balance, from difference of evaporation in insulated and non-insulated vessels.

On the north side of the wall, at the bottom of the garden, is a summer-house, the roof of which consists of boards covered with painted canvas, a lining of stout brown paper being introduced to equalise the temperature, which under the roof, during the hottest days, does not exceed that of the external air in the shade by more than one or two degrees. Into the west end of this house is placed an ordinary meat safe, the sides and doors of which consist of stout gauze, so that when the doors are closed the apparatus, represented in the above sketch, whilst it is under the free influence of air, is protected from wind, the necessary precautions being taken to ensure that both the copper vessels, which contain each 32 ozs. of water, and are 7½ in. diameter, shall be similarly circumstanced. The copper wire, *c*, which is connected with an iron rod driven 4 ft. into the ground, is likewise conducted some distance underground outside the building in connection with the garden wall, which ensures full terrestrial influence, so that whilst the vessel *b* is always connected, electrically, with the earth, *a* is insulated from it.

STATEMENT.

Date.	1845. Insulate.	1845. Non.-In.	1846. Insulate.	1846. Non.-In.	1847. Insulate.	1847. Non.-In.	1848. Insulate.	1848. Non.-In.	1849. Insulate.	1849. Non.-In.	185 . Insulate.	185 . Non.-In.	1851. Insulate.	1851. Non.-In.
January	The vessels were first filled on Oct. 10, 1845	—	270	115	140	40	325	170	90	65	265	395	10	
February ..		—	—	70	280	105	100	55	125	155	95	20	95	—
March		—	365	33	370	130	145	170	175	200	65	340	245	60
April		—	215	75	195	195	60	295	20	515	235	320	145	20
May		—	310	345	225	185	240	275	60	695	90	365	165	55
June		—	445	160	200	175	425	145	65	660	225	375	290	65
July		—	900	100	215	225	335	175	455	235	690	65	280	30
August		—	245	35	355	65	340	65	295	150	160	70	180	65
September ..		—	225	120	345	65	105	180	65	205	50	180	—	—
October		—	280	145	150	275	310	145	130	280	165	40	—	—
November ..	960	—	130	195	90	290	140	95	80	405	315	—	—	—
December ..		—	215	135	80	320	160	150	110	325	185	—	—	—
Grains....	960	—	3360	1983	2620	2170	2400	2075	1720	3915	2340	2130	—	—
Mort. p. cent			2·379		2·782		2·662		3·113		2·176		—	

Evaporation, not being referable to "heat," is clearly to be attributed to some other cause, and that cause, until evidence be adduced to the contrary, we shall assume to be electricity. It is reasonable to suppose, then, that the water under the greatest electrical influence should evaporate most; and on reference to the figures in the above statement, it will be seen that during the year 1846 there was a great excess of evaporation from *a*, representing the electrical state of the the air, whilst in 1849 there was a corresponding excess from *b*, representing the electrical state of the earth. In 1846, the potato disease prevailed; in 1849, we had the cholera; and below our figures we have added the per centage of mortality in the metropolis, extracted from the highly valuable returns afforded by the Registrar-General, between which and the totals there is, to say the least, a strange coincidence.

These constitute a portion of our facts, but others having also afforded evidence of the electrical condition of the air as having relation to epidemic diseases, we append a statement compiled by M. M. Pelletier and Quetelet, leaving it to the reader to form his own opinion of the relative value of our apparatus and the electrometer as instruments of practical research. This table is taken from the *Philosophical Magazine* for April last, and to it is appended the following remark:—"All these questions deserve still higher importance, from the fact that the anomaly remarked coincided very nearly with the return of that scourge which caused our population to suffer so severely," a sentiment, we should hope, that will induce the scientific world to sink all minor considerations in the investigation of principles, the development of which, if correct, can alone throw a glimmer of light upon so momentous a subject.

MEAN OF THE DEGREES OBSERVED WITH THE ELECTROMETER.

	1845.	1846.	1847.	1848.	1849.	1850.	1851.
January	50	50	63	50	39	49	59
February ..	55	45	45	44	36	38	52
March	44	26	47	36	27	36	31
April	27	23	30	27	20	19	—
May	26	19	21	18	16	22	—
June	18	18	18	18	13	14	—
July	21	14	18	22	14	12	—
August	27	22	6	24	21	19	—
September ..	29	23	17	24	24	28	—
October	42	26	30	32	31	36	—
November ..	44	41	35	36	45	34	—
December ..	53	51	48	45	38	50	—
Year	36	30	31	31	27	30	—

GEOLOGICAL MAP OF LONDON.—A coloured map of London and its environs, from a survey by Mr. R. W. Mylne, C.E., has just been published by Mr. Wyld, Charing-cross. It comprises an area of about 150 square miles, being from East Ham to Chiswick east and west, about 15 miles, and from Hampstead in the north to Clapham in the south, about 10 miles. The different colours represent the general surface soils, omitting the thin alluvials, except the peat, in the Plumstead, Plaistow, and other low grounds. The positions are distinctly defined of the brick-earth loam, gravel and sand, the silicious sands of the Bagshot series, at Highgate and Hampstead, the general London clay formation, the striped sands, shells, pebble beds, and mottled clay of the lower tertiary formation, and the chalk. The made ground and accumulated debris occurring in the city and anciently populated parts are omitted; it varies from 8 to 18 feet in thickness, and in Westminster from 6 to 12 feet. There are figures on the principal summits denoting their heights above high-water mark, with shaded contour lines, indicating 10 ft. altitudes, and nothing appears to have been omitted to render the map of great utility in a sanitary point of view, as well as to architects, surveyors, builders, sewer contractors, and others interested in a correct knowledge of the geological features of the great metropolitan district. The map also, being the first topographical as well as geological, is rendered additionally valuable.

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending Sept. 13, was 43,906.—Amount of money, £182 18*s.* 10*d.*

BOROUGH OF SUNDERLAND—NOTICE TO ENGINEERS AND SURVEYORS.—Any PERSON desirous of OBTAINING the APPOINTMENT to the office of SURVEYOR to the CORPORATION OF SUNDERLAND, is requested to FORWARD TESTIMONIALS of QUALIFICATION and COMPETENCY, addressed (free of postage) to the "Town Clerk, Sunderland," on or before Wednesday, the 8th day of October next, on which day the Committee appointed by the Corporation will meet, at Seven o'clock in the evening, to RECEIVE and examine APPLICATIONS and TESTIMONIALS of CANDIDATES. 49

As the duties of such Surveyor will comprise the Municipal as well as the Local Board of Health business of the Corporation, a Candidate must be familiar with the practice of engineering, especially hydraulic engineering, in connection with works of water supply, drainage, sewerage, and surface cleansing—competent to conduct surveys, prepare plans of estates, drawings, and estimates of works of every description, and able to superintend the execution thereof, test the materials, and see to the fulfilment of the conditions of their contracts by contractors for such works.

The whole time of the Surveyor is to be devoted to the duties assigned to him, and he is to be restricted from undertaking any other employment. Salary, £250 per annum, with permission to take pupils.

Candidates are to state their age in their applications, but are not required to attend personally before the Committee, unless specially summoned. The successful candidate is, if required, to give bond for the faithful discharge of his duties. The Town Clerk, on application to him (if by letter, to be post-paid), will answer all inquiries, and give any further information. By order,

Sunderland, Sept. 11, 1851. WILLIAM SNOWBALL, Town Clerk.

GOVERNMENT SCHOOL OF MINES,
AND OF SCIENCE APPLIED TO THE ARTS.
Museum of Practical Geology. 50

The COURSE of STUDY at this INSTITUTION will commence on THURSDAY, the 6th of November, 1851, and the following LECTURES and PRACTICAL DEMONSTRATIONS will be given during the session:—

1. CHEMISTRY, applied to Arts and Agriculture ....LYON PLAYFAIR, Ph. D., F.R.S.
2. NATURAL HISTORY, applied to Geology and the Arts } EDWARD FORBES, F.R.S.
3. MECHANICAL SCIENCE, with its applications to Mining } ROBT. HUNT, Keeper of Mining Records.
4. METALLURGY, with its special applications .....JOHN PERCY, M.D., F.R.S.
5. GEOLOGY, and its practical applications .....A. C. RAMSAY, F.R.S.
6. MINING and MINERALOGY .....WARINGTON W. SMYTH, M.A.

The fee for the course of two years is one payment of £30; or £20 for each session, from November to August inclusive.

Practical Instruction in the Field, in Geology, Mining, and Palæontology, is included in the above charges.

Occasional Students may attend separate Courses of Lectures and Field Instruction on payment of the Fees mentioned in the program.

The Laboratories for Chemistry and Metallurgy will be open for the reception of Pupils on payment of £15 for the session of five months.

Officers of the Army and Navy, either in the Queen's or the Honourable East India Company's service, are admitted to the Lectures at half the usual charges.

Students who propose to enter with the view of obtaining the Diploma of the Institution, are requested to apply to Mr. Trenham Reeks, at the Museum, from whom the necessary information may be obtained. H. T. DE LA BECHE, Director.

LIVERPOOL COLLEGE OF CHEMISTRY.
Professor—Dr. SHERIDAN MUSPRATT, F.R.S.E.
STUDENTS are INSTRUCTED in EVERY BRANCH of the SCIENCE.
Fees for Analysis or Assays may be had on application, with full prospectuses. 51

AUSTRALIAN GOLD MINING COMPANY.
Capital £1 0,000, in £1 shares, with power to increase, if necessary.
Deposit 3d. per share. 52

The object of this Company is to send out adventurers for the purpose of exploring the gold mining districts of New South Wales, in the colony of Australia, upon mutual advantages. Concessions and privileges will be obtained from the proper authorities to secure exclusive rights to the shareholders of this company.

Detailed prospectuses will be shortly published; in the meantime applications for shares (pre-paid) may be sent to Charles Gurney, Esq., 14, Great Winchester-street, London, but not later than Monday next, when the allotment will take place.

CWMDYLE ROCK AND GREEN LAKE COPPER MINING COMPANY,—CARNARVONSHIRE, NORTH WALES.
Capital £30,000, in 10,000 shares of £3 each—conducted on the "Cost-book" principle.
Deposit £1 per share, payable upon allotment.
OFFICES OF THE COMPANY,—2, SCOTT'S-YARD, BUSH-LANE, CANNON-STREET.
COMMITTEE OF MANAGEMENT.
Mr. EDWARD ASHTON, Milton-street, Dorset-square
Mr. SYLVESTER WALSH, Polygon, Somers Town
Mr. JAMES ARRAGON, Maida-hill
Mr. H. A. SPARDING, Hanover-square
(With power to add to their number.) 53
AUDITORS.
Mr. James O'Leary, for the committee; Mr. James Turney, for the shareholders.
BANKERS—Messrs. Rogers, Olding, and Co., Clement's-lane, Lombard-street.
SOLICITOR—Mr. Edward Maniere, 31, Bedford-row.
PURSER AND SECRETARY—Mr. Henry Palmer.

The Cwmdyle Rock and Green Lake Mine is situate on a large estate in the parish of Beddgelert, Carnarvonshire. The grant extends over about five miles in length and three in breadth, and is held under a lease of 21 years, 13 of which are unexpired, under a moderate royalty.

The purchase of the interest of the late adventurers in this valuable mine has been secured upon very favourable terms—viz., that the whole of the purchase-money shall be taken in paid-up shares in this Company, carrying interest of 6 per cent. per annum upon £2 per share—payable annually from their respective dates. The remaining £1 deposit and further call (if any), to carry dividends arising from the workings.

Interest, at the same rate, will be paid to subscribers upon all shares paid up in full by them. The *bonâ fide* holders of scrip in the former undertaking have consented to take in exchange paid-up shares in this Company, in preference to being paid off, and will be entitled to the same rate of interest thereon.

The greater part of the shares are already taken, and the remaining few will be allotted to responsible applicants only.

The subscription will be closed on the 23d inst.

Applications for more detailed prospectuses, plans, and forms of application for shares may be made at the offices of the Company; at the offices of the solicitor, 8 A, Milton-street, Dorset-square; and at Mr. Ringrose's, Sherrard-street, Golden-square.

STIRLING'S PATENT ALLOYS.—RAILWAY CARRIAGE BEARINGS, MILL BRASSES, and all DESCRIPTIONS of CASTINGS, are MANUFACTURED by ALFRED BARRETT, Bishopsgate Foundry, Skinner-street,
SOLE LICENSEE FOR LONDON.
BELLS of very superior quality (Stirling's Patent) are also SUPPLIED. 54

NEW LOCOMOTIVE FOR BURNING ANTHRACITE.

A boiler, so arranged as to be capable of consuming anthracite coal, without being rapidly destroyed from the intense heat of that fuel, and to supersede the difficulties hitherto attendant on the management of the fire, has long been desired in South Wales, but more especially in America, where the immense coal-fields of Pennsylvania are composed principally of that fuel; and Mr. J. F. P. Dimpfel, of Philadelphia, has at length, we are glad to learn, solved the problem, with perfect success. The boiler is as usual a tubular one, the pipes of which communicate at their ends with the water in the boiler at the chimney end, by being carried through the tail plate of the fire-box into a part of the water chamber, and the fire-box ends of the tubes are bent upwards, and passed with a water-tight joint through the crown plate; the boiler thus consists of a series of chambers, all communicating over the crown plate at the two ends and down the sides of the fire-box; the heated air and products of combustion passing off readily among the pipes to the chimney, the water from the ends of the bent tubes continually boiling out over the crown plate keeps it from burning, and secures a constant flow of water through the tubes. The crown plate of the fire box is made with a rim or projection all round, the better to retain the water flowing from the bent ends of the tube, in case the water in the boiler should get low. A short distance above the top flue plate there is a cylinder, provided with a reciprocating piston, the rod of which passes through the head of the boiler, that it may be connected with any moving part of the engine; or any other first mover, to give it a reciprocating motion. The cylinder is provided with two eduction and two induction valves, discharging into a pipe leading down into one of the water spaces. This motion of the piston will produce a current of water down the water space, in which the pipe is located, and this will induce a current through the boiler and over the heating surface. Mr. Dimpfel's engine has been in use daily for several months, running over 6000 miles of railway, and consuming anthracite exclusively. The length of the boiler is 10 ft. 8 in., diameter, 42 in, 99 tubes, 835¼ ft. heating surface, diameter of cylinder, 15½ in., 26-in. stroke, four driving wheels 6 ft. diameter, and weighs, when in working condition, 24½ tons.

FORMATION OF MINERALS IN THE MOIST WAY.—M. de Senarmont, to whom we owe the valuable and ingenious experiments upon the conducting power of crystallised substances, has been engaged in the endeavour to form some of our common minerals occurring in veins, by the liquid way, and has succeeded in getting from solutions containing carbonic acid and sulphuretted hydrogen, and the alkaline sulphurets and bi-carbonates, either alone or together, microscopical but perfectly formed crystals of the following substances:—Native metals—copper, silver, mixed without alloying, arsenic; oxides—hematite, quartz, red oxide of copper; carbonates of magnesia, iron, manganese, cobalt, nickel, zinc, copper (malachite); sulphate of baryta; sulphurets of arsenic (realgar), antimony, bismuth, iron (pyrites), manganese, cobalt, nickel, zinc (blende), copper; oxy-sulphuret of antimony; arsenio-sulphurets of iron (mispikel) silver; antimonio-sulphuret of silver. What he proposed to himself was, to establish by experimental proofs, the opinion controverted, but to him very probable, which attributes the filling of concretionary veins to the thermal incrusting deposits, and to show that the formation of a great number of the minerals which are there met with, whether crystallised or amorphous, does not always require conditions or agents very different from actual causes.—*Comptes Rendus.*

GREAT POLGOOTH MINING COMPANY.—At the First General Meeting of proprietors, held at the London Tavern, on Wednesday, the 17th inst., F. C. BROWN, Esq., in the chair, 55

the following RESOLUTIONS were agreed to:—

Moved by Mr. John Browne, and seconded by Mr. Heseltine, Sen.,
1. That the report and accounts just read be received and adopted.

Moved by Mr. Johnson, and seconded by Mr. Withers,
2. That the profit of 1100*l.* 9s. 10d., as shown to have accrued over the working costs for the two months and 26 days, to 30th June last, be payable as a dividend of 2s. per share, on and after the 24th inst., being at the rate of about 14 per cent. per annum.

Moved by Mr. Orton, and seconded by Mr. Street,
3. That it is considered preferable, on account of the large number of shares constituting the Company, to pay dividends in future at intervals of not less than six months.

Moved by Mr. G. Thomas, and seconded by Mr. John Browne,
4. That Mr. Samuel Heseltine, Jun., be added to the committee.

Moved by Mr. Samuel Heseltine, sen., and seconded by Mr. Mercier,
5. That Mr. Wm. Mariner and Mr. W. F. Street be the auditors of the Company.

CHYPRASE CONSOLS TIN AND COPPER MINE, situated in the parish of ST. ENODER, near TRURO, CORNWALL. 56
In 1024 shares, of £5 5s. each.—Deposit £1 7s. 6d. per share.—Conducted solely on the *COST-BOOK SYSTEM.*

The attention of mining speculators and others are particularly directed to this promising undertaking, which, from the progressive and forward state of the works, holds out every prospect of its soon becoming a good dividend-paying mine; and from its known richness it is well worthy the attention of speculators in mining property.

A few shares only are offered to the public, as more than three parts are already taken up; therefore, immediate application is absolutely necessary, to be made to the Committee of Management, through Mr. Thomas Lewis, No. 17, New Meeting-street, Birmingham, purser; A. Yeates, Esq., solicitor, 77, New Hall-street, Birmingham; or to Messrs. Boxall and Co., 7, George-yard, Lombard-street, City, London.

Prospectuses, reports, and every information, may be obtained upon application to either of the above named parties; the Committee of Management have decided to allot shares to approved applicants until further notice.

The deposits may be paid into the bankers of the Company, the "National Provincial Bank of England," at Birmingham; or through their London and provincial houses.

By order of the committee,
Birmingham, August 8, 1851. THOMAS LEWIS, Purser.

DEVON COPPER ORE SMELTING COMPANY.
[*PROVISIONALLY REGISTERED.*]
Capital £12,000, in £12,000 shares, of £1 each—(No further call or increase of capital).
FIRST DIRECTORS.
JAMES LAMB, Esq., 89, Gloucester-terrace, Hyde-park
GEORGE BURN OMAN, Esq., 23, Westbourne-terrace road, Hyde-park 57
ALEXANDER PETER, Esq., Bishopsgate-street-within
JOHN R. DAVIDSON, Esq., Elm Villa, Finchley.
BANKERS.
LONDON—The London and Westminster Bank, Lothbury
COUNTRY—Messrs. Hawkey, Nicholls, and Co., Falmouth
SOLICITOR—E. Manby, Esq., Lombard street Chambers.
PROVISIONAL SECRETARY—E. Manby, Esq.
BROKERS—Messrs. Lind and Rickard, Bank Chambers, Lothbury.

It is well known that the immense quantities of poor copper ore at the mines of Devon and Cornwall have hitherto been deemed almost valueless, owing to the expense attending the extraction of the copper, but by a method of concentrating and converting patented, as "Todd's Patent," not only the copper, but the other chemical products, particularly the arsenic, in these descriptions of ore, can now be made available at a very small expense; the copper being concentrated for sale to the smelter, and at the same time, without any additional expense, the arsenic is extracted; the profit from the latter alone being sufficient to defray the cost of concentrating the copper, and to leave a large return.

The efficacy of this process has been proved to the satisfaction of the most experienced chemists, amongst whom may be named Dr. Ure, M.D., F.R.S., and Professor of Chemistry; and William Phillips, Esq., Curator of the Museum of Practical Geology.

Arrangements have been made with the patentee upon favourable terms, and the object of this company is to carry into effect, to the largest practical extent, the process in question: and after the closest investigation, the directors feel justified in anticipating a very large return for the capital employed, as shown by the following estimate:—

The cost of 3000 tons of ore, and expense of working the same, in coke, wages, &c., &c., proved by actual results, would be £2 per ton, or in all	£6,000
The produce of these, according to actual results would be—	
1000 tons of copper regulus, worth £4 per ton.....	£4,000
100 tons of arsenic, at £10 per ton (the present market value being £11 per ton)	10,000
	£14,000
From which deduct cost as above	6,000
Nett profit.....	£8,000

Any person well acquainted with the value of the two products, copper and arsenic, will at once perceive that the above is rather under than over the mark.

The above calculation is given merely to show the result on 3000 tons, but the works will be capable of concentrating a much larger quantity annually.

The patentee has offered to the company the temporary use of his extensive premises at Bissoe, near Truro, until the company's works are erected, and these premises having already been used by him in proving the value of his patent, the company will be able, immediately on being formed, to commence working.

The copper regulus obtains a ready sale to almost any extent; and the consumption of arsenic is very considerable, and annually increasing—the present consumption being 3000 tons per annum. An interest to the extent of 2000 shares will be taken by the patentee, and the agreement with him, as also the reports of Dr. Ure and Mr. Phillips, may be seen, and all further particulars learned, at the office of the company.

Prospectuses and forms of applications for shares may be obtained at the temporary office of the company, Lombard-street Chambers, of the solicitor, and of the brokers.

Scrip in exchange for the bankers' receipts, will be issued the week after allotment.

TO THE DIRECTORS OF THE DEVON COPPER ORE SMELTING COMPANY.
GENTLEMEN,—I request you to allot me shares in the above Company, and I hereby agree to take the same, or any less number you may allot me, and to sign the Deed when required.
Name.....
Address.....
Occupation .....
Dated this day of 1851. Reference .....

WEST CAMBORNE MINING COMPANY.
Divided into 5000 shares.—Deposit 20s. per share.
CONDUCTED ON THE COST-BOOK PRINCIPLE. 58
LONDON OFFICES,—3, GEORGE-YARD, LOMBARD-STREET.

These mines are in the same stratum of ground, and stand parallel to, and east and west of, Wheal Grenville, Tolcarne, Condurrow, Wheal Harriet, West Frances, South Frances, West Basset, North Basset, South Basset, and numerous other valuable and productive mines. They are held under lease for twenty-one years, at 1-18th dues, being situate at Carnynnen (the property of Hendre Molesworth St. Aubyn, Esq.), in the western part of Camborne, in the county of Cornwall—the most metalliferous district in the world. The sett is traversed by many east and west lodes, which present on the backs the usual indications of the district—viz.: gossan, quartz, blende, iron pyrites, fine specimens of grey and oxide of copper ore, together with other metallic concomitants. Several slides and cross-courses intersect the lodes, of known importance; a fine elvan-course exists about the junction of the killas and granite, which takes place in the Company's grant.

From the ablest and most careful judgments of the oldest and best mining agents in Cornwall, £6000 is deemed amply sufficient to purchase and erect the necessary machinery, and bring the mines into profitable and good working order; therefore, it is proposed to sell 3000 shares, at £2 each, and the remaining 2000 shares to be retained by the proprietors for the transfer of the property, leases, and remuneration for work done.

The following few mines, situate in the same district, and within a short distance of the Company's grant, have paid, during the past half-year, £38,042 in dividends—the whole expenditure to realise which was £80,022, and the present market value of the same is £645,840. Thus it will be seen that the average return is £95 per cent. per annum upon the original cost, and upwards of £11 15s. per cent. per annum upon the current market value of shares. The aggregate amount of profits from these mines, divided, exceed £675,000—thus returning to the fortunate shareholders more than eight times their outlay, and the prospects of continued success at present being equal to any period of their existance.

	Outlay.	*Div. last 6 months.*	*Market Value.*
Wheal Buller	£ 1,280	£8320	£134,400
Carn Brea.....	15,000	7000	105,000
South Wheal Frances	19,840	5954	64,480
South Wheal Basset.....	2,620	5120	102,400
North Pool	4,500	4500	50,000
Wheal Seton.....	21,186	1980	49,600
South Tolgus	4,096	1920	40,960
North Roskear	10,000	1750	21,000
North Wheal Basset	1,500	1500	78,000
Total	£80,022	£38,042	£645,840

The expenditure, price, and profits divided, as far as can be gathered, are stated above. Many other mines in the neighbourhood, not valued, are selling at considerable premiums, and fast approaching dividends; but as the market price partakes more of a speculative than intrinsic value, and subject to constant changes, they are omitted.

Applications for shares to be made to the secretary, Mr. H. B. Bousfield, at the Offices of the Company; and to Messrs. Tredinnick and Co., 3, George-yard, Lombard-street, London, of whom prospectuses and all further particulars can be obtained.

NORTH TRELAWNY MINE (SILVER-LEAD AND COPPER), PARISH OF LINKINHORNE, COUNTY CORNWALL.
In 16,000 parts, or shares, of 10s. each, in scrip to bearer. 59

This Association is conducted under a Committee of Management, on the principle of the "Cost-book," which exempts proprietors (the undertaking being within the jurisdiction of the Stannary Court) from any liability beyond the amount of their shares, and enables them to withdraw at any time, by giving notice to the purser to that effect.

In addition, scrip (payable to bearer) will be issued for the parts or shares, which will make it optional with the holder to register or not.

This mining sett, from its geological position alone, is one of great value, both for silver-lead and for copper, which is confirmed by the discoveries already made, and give assurance of the best results.

North Trelawny is at Rilla Mill, in the parish of Linkinhorne, and manor of Rillaton; it is bounded, generally, on the north and east by the Callington district; on the west by the well-known Caradons; and on the south by the celebrated Trelawny district.

The Trelawny lode of silver-lead runs through this sett north and south, and the Caradon copper lodes likewise traverse the property east and west. It is superfluous to allude to the well-known extraordinary richness of either the Caradon or the Trelawny mines. The stratum generally is dark blue soft "plum" killas, which is so congenial for the production of rich mineral, and can be worked with much facility and economy.

Prospectuses, with form of application for shares, and every information, may be obtained at the offices, No. 30, Bucklersbury.—By order, JAMES A. MAY, Purser.

FINAL NOTICE.
ST. AGNES BEACON TIN AND COPPER MINE,
CORNWALL.—In 2500 shares, of £1 1s. each.
(*ON THE COST-BOOK SYSTEM—No further Liability*). 60
In conformity to the Law of the Stannaries.—Committee to be selected from the shareholders. BANKERS—London and Westminster Bank.

The share list being nearly complete, NO FURTHER APPLICATIONS will be RECEIVED by F. W. Pike, Esq., 26, Bedford-row; or Mr. John Morgan, sworn broker, 2, Copthall-court, London: after SATURDAY (THIS DAY), the provisional committee will proceed in the course of a week to allot the shares, of which due notice will be given.

Dated September 20, 1851.

To be published by subscription, on the 1st of December, 1851,
TABLES FOR THE USE OF PERSONS EMPLOYED IN MINES. 61

1. For ascertaining the Value of Excavations on Tutwork at per fathom, from 1 inch to 12 fathoms, and from 1d. to £22 per fathom—also suitable for calculating stopes.
2. For ascertaining the quantity of water in a given quantity of ore, at from 1 ounce to 94 pounds per barrow of 3 cwts.
3. For ascertaining the standard to be given for any produce from 1¼ to 60¾, in proportion to a given standard and produce, on the same plan with Phillips's Copper Ore Standard Sheet.
4. For ascertaining the value of a ton of copper ore at any standard, from 3d. to £199 19s. 9d., and for any produce, from 1¼ to 30¾.
5. For ascertaining the tributer's part of any sum of money, from 6d. to £100 and above, at any tribute, from 1d. to 15s. in the *l.* sterling.

These tables have been used by the author for more than five years; and at the last Exhibition of the Royal Cornwall Polytechnic Society, they obtained a prize of the first bronze medal. Richard Taylor, Esq., in introducing them to notice on that occasion, is reported to have stated that "he might say, as one of the judges (and there were several mine agents among them), that the tables were such as could hardly fail of being very useful, and they were proposed to be published at a price which was very moderate indeed, so that he trusted they would come into general use." See the reports of the proceedings of the Royal Cornwall Polytechnic Society, in the *West Briton*, for Sept. 20 and 27, 1850.

Price to subscribers 5s. per copy, and 7s. 6d. to non-subscribers. The price is fixed thus low in order to bring the work within the reach of the working miner.

*** Orders to be addressed to the office of the *Mining Journal*, 26, Fleet-street, London, or to Mr. William Whitburn, Liskeard.

STEAM TO INDIA, CHINA, &c.—Particulars of the regular MONTHLY MAIL STEAM CONVEYANCE,
AND OF THE ADDITIONAL LINES OF COMMUNICATION, NOW ESTABLISHED BY THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY 62
with the EAST, &c. &c. The Company book PASSENGERS, and receive GOODS and PARCELS, as heretofore, for CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG KONG, by their steamers, starting from SOUTHAMPTON on the 20th of every month, and from SUEZ on or about the 10th of the month.

One of the Company's first-class steamers will also be dispatched from Southampton for Alexandria, as an extra ship, on the 3d of November next, and of alternate months thereafter, in combination with extra steamers, to leave Calcutta on or about the 20th October and 20th December. Passengers may be booked, and goods and parcels forwarded by these extra steamers to or from SOUTHAMPTON, ALEXANDRIA, ADEN, CEYLON, MADRAS, and CALCUTTA.

BOMBAY.—The Company will likewise dispatch from Bombay, about the 1st November next, and of every alternate month thereafter, a first-class steam-ship for ADEN, to meet there the extra ship between Calcutta and Suez; and at Alexandria one of the Company's steam-ships will receive the passengers, parcels, and goods, and convey them to Southampton, calling at Malta and Gibraltar.

But PASSENGERS, PARCELS, and GOODS for BOMBAY and WESTERN INDIA will be CONVEYED THROUGHOUT from SOUTHAMPTON in the Mail steamers, leaving Southampton on the 20th of October, and of alternate months thereafter, and the corresponding vessels from Suez to Aden, at which latter port a steam-ship of the Company will be in waiting to embark and convey them to Bombay.

Passengers for Bombay can also proceed by this Company's steamers of the 29th of the month to Malta, thence to Alexandria, by Her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—MALTA: On the 20th and 29th of every month.—CONSTANTINOPLE: On the 29th of the month.—ALEXANDRIA: On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

N.B.—Steam-ships of the Company now ply direct between Calcutta, Penang, Singapore, and Hong Kong, and between Hong Kong and Shanghae.

For further information and tariffs of the Company's recently revised and reduced rates of passage-money and freight, and for plans of the vessels, and to secure passages, &c., apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

TO MINE PROPRIETORS, WATER-WORK AND LAND-DRAINAGE COMPANIES, CONTRACTORS, MANUFACTURERS, AND OTHERS.

GREAT BRITAIN STEAM-SHIP. 63
The PROPRIETORS of this SHIP desire TENDERS for the WHOLE (or for any definite section, that would not prejudice the entirety of the remainder) of her STEAM MACHINERY, as originally constructed, consisting of FOUR 88-inch CYLINDERS, of 6-feet stroke, with pistons and rods, air-pumps and condensers, connecting-rods and guides, and all the detail of nozzle and valve gearing, necessary to render each pair of cylinders complete in themselves, from the pistons to the crank-pins.

Apply to Mr. Croome, civil engineer, or Capt. Mathews, on board the vessel, Sanden Graving Dock; or Gibbs, Bright, & Co., Liverpool.

TO AGRICULTURISTS.—IMPROVEMENTS IN THE PREPARATION OF MANURES.—AGRICULTURISTS are INVITED to take SAMPLES of MANURES (Stones's Patent Huminate), free of expense, at the office of the GENERAL PEAT WORKING AND MANURE COMPANY, 6, JOHN-STREET, ADELPHI, LONDON.—The Patent Huminate is free from filthy matter; it consists entirely of concentrated decomposed vegetable organic substances, soluble humic acid, fixed salts of ammonia, with other ingredients, according with soil, plant, and climate. It will promote vegetation in all its requirements, and invariably improve the soil, and can challenge the best guano, at one-third the cost.

To every scientific person, or practical farmer (however deficient in knowledge of chemical science), who inquires into the composition of these manures, [illegible] of bringing guanos to England, even though they cost but one quarter the price [illegible] them, will appear most undeniably.

Samples may be had on application at the *Mining Journal* office, 26, Fleet-street. 64

STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only 10s. to 12s. per ton extra.

2. ANTI-LAMINATING IRON, for RAILS and TIRES, &c., at an extra price of from 7s. 6d. to 10s. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT IRON—saving one process to the manufacturer.

The following Iron Manufacturers are duly LICENSED to MAKE the IRON:—

Messrs. BAIRDS'	Gartsherrie, Glasgow.
The CLYDE IRON COMPANY	ditto ditto
The FIRTH IRON COMPANY	ditto ditto
The HERSLEY COMPANY.....	Tipton, Staffordshire.
Messrs. LLOYDS, FOSTER, & CO.	Wednesbury.
Mr. JOHN WILSON	Dundyvan, Glasgow.

AGENTS. 65
Messrs. W. & J. H. JOHNSON, 166, Buchanan-street, Glasgow, and 20, St. Andrew's-square, Edinburgh.

Further particulars may be obtained on application to the agents; or to Mr. JEE, civil engineer, No. 6, John-street, Adelphi, London.

TO THE MINING AND SHIPPING INTERESTS.

WIRE AND HEMP ROPES,—MANUFACTURED under PATENT GRANTED TO JAMES B. WILSON,
HAYDOCK ROPE-WORKS, NEAR WARRINGTON. 66
Applicable to SHIPPING, INCLINED PLANES, MINES, COLLIERIES, &c.; as also to WIRE CABLES for SUBMARINE, OVERLAND, and UNDERLAND TELEGRAPHS.

Sizes, with comparative weights and strength, as also price per cwt. or fathom, may be obtained on application to the patentee.

All sizes of wire strands, railway signal lines, flat and round copper rope, lightning conductors, window sash lines, &c.—Warrington, July 5, 1851.

NEW INVENTION.

THE ELECTRO-MAGNETIC ENGINE, as a SOURCE of MECHANICAL POWER, to SUPERSEDE the USE of STEAM as a PRIME MOVER.—TO CAPITALISTS: The above invention having received the testimonials of professors of the greatest celebrity in science, the proprietor is desirous of introducing it into public use, under the protection of Patents. He will TREAT with CAPITALISTS for that purpose, with the ultimate object of FORMING a COMPANY, to be called the "British Electric Power Company."—All communications to be addressed to FRANCIS S. BEATTY, 29, Capel-street, Dublin. 67

A Treatise on the subject will be sent free for six postage stamps—a prospectus for one

FOR THE SHOOTING SEASON, 1851.—DEANE, ADAMS, & DEANE, GUN-MAKERS to H.R.H. PRINCE ALBERT, beg respectfully to call the attention of SPORTSMEN to their late IMPROVEMENTS in GUNS, PISTOLS, and RIFLES, which may be seen and tested daily, with a large assortment of their best town-made GUNS, at the MANUFACTORY, No. 30, KING WILLIAM-STREET, LONDON-BRIDGE.—August 7, 1851.

*** Sporting ammunition of the best quality on the lowest terms. 68

GAS LIGHTS FOR EXHIBITION.—GUISE'S ORIGINAL ECONOMIC SHADOWLESS GAS BURNERS AND GLASS REFLECTORS are now well known to be the BEST BURNERS and REFLECTORS in the MARKET.—GUISE'S newly-invented GLASS-CONED SHADOWLESS GAS BURNERS have been tested by the first Gas Engineers of the day, and proved by them to be SUPERIOR in BRILLIANCY and ECONOMY to all burners hitherto invented. They are used with the short common straight chimney, and are extensively adopted by the London Gas Companies, and may be had of all respectable gas-fitters, and at Guise's Gas Burner Manufactory, No. 45, Clerkenwell-green, London.

*** None are genuine unless marked "Guise, Registered," or "Patent." 69

VAUXHALL, NASSAU BALLOON ASCENT—MONDAY
—LAST FIVE NIGHTS OF THE SEASON.—THE VETERAN GREEN will make his LAST ASCENT THIS SEASON in his MAMMOUTH NASSAU BALLOON. Doors open at Five. Ascent at half-past Six precisely. ADMISSION ONE SHILLING. The director, Mr. R. Wardell, cannot refrain from expressing his gratitude for the unprecedented patronage awarded to him, and begs to assure the public that Friday next, announced as the close of the season, will really be the last night an opportunity will be afforded of visiting this splendid establisment this year. The entertainments will comprise the extraordinary feats of Hernandez, the young American Wonder, and Mdlle. Palmyra Annato, indisputably the two most marvellous Equestrians in the world—Madame Antonio's Daring Rope Ascent—Fossault's beautiful and Novel Fire and Water Sports—Arban's Inimitable Band for Concert and Ball—Brilliant Fireworks—Gorgeous Illuminations, &c., &c. The Royal Gardens will be open each evening at Seven o'clock. Admission 1s. 70

THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5120	Alfred Consols (copper), Phillack	3	£1 13 to 1st Aug.	£0 6 0 Aug.	14	14½ 14
1248	Allt-y-Crib (silver-lead), Talybont, Wales	—	0 2 6 to August	0 2 6 „	7½	7
1624	Balleswidden (tin), St. Just	11½	8 15 to Aug.	6 4 to Aug.	10	
4000	Bedford United (copper), Tavistock Devon	2½	2 16 to Aug.	0 4 to Aug.	7½	7½
64	Boscaswell Downs (tin), St. Just	—	750 0 to May, 1849	—	100	
100	Botallack (tin and copper), St. Just	182½	440 0 to 5th April	5 0 to May	200	200
1000	Bryntall, Llanidloes, Montgomeryshire	2½	0 5 to end June	0 5 to June	17½	17½ 16½
1000	Callington (lead and copper), Callington, Devon	29	6 0 to Sept., 1847	—	5½	5
1000	Carn Brea (copper and tin), Illogan	15	202 0 to June, 1851	2 0 to June	95	95
128	Comford (copper), Gwennap, Cornwall	70	—	—	20	20
256	Condurrow (copper and tin), Camborne, Cornwall	20	11 0	—	112½	113 110 101
1024	Devon Great Consols (copper), Tavistock	1	239 10 to Aug.	7 0 to Aug.	295 290	290 295
180	Dolcoath (copper and tin), Camborne	252	855 14 to 1847	—	28	
128	East Pool (tin and copper), Pool, Illogan, Cornwall	24½	233 0 to 1843	—	130	140
94	East Wheal Crofty (copper), Illogan, Cornwall	125	242 10	—	150	
128	East Wheal Rose (silver-lead), Newlyn	50	2227 10 to 5th Sept.	12 10 to Sept.	450	
494	Fowey Consols (copper), Tywardreath	40	—	—	30	
3750	General Mining Company for Ireland (copper)	1½	35 per cent. to June	10 per ct. ½ year	5½	
100	Goginan (lead), Cardiganshire, Wales	5	440 0 „	—	200	
96	Great Consols (copper), Gwennap, Cornwall	1000	353 6 8 to January	—	200	
119	Great Work (tin), Germoe	100	115 0 to Aug.	5 0 to Aug.	2 0	
1024	Herodsfoot (lead), near Liskeard, Cornwall	8	0 7 6 to Aug.	0 2 6 to Aug.	5½	
1000	Holmbush (lead and copper), Callington	24	25 0 to Feb., 1844	Feb., 1844	11½	
786	Kirkcudbrightshire (lead), Kirkcudbright	9½	0 5 to Sept.	0 5 in Sept,	4	5
1000	Lewis (tin and copper), St. Erth	17	2 0 to 1st Aug.	0 10 to Aug.	15	17½ 16
160	Levant (copper and tin), St. Just	2½	1032 0 to 5th Sept.	2 0 to Sept.	150	
100	Lisburne (lead), Cardiganshire, Wales	75	640 0 to 1st Aug.	20 0 to Aug. 1	700	
5000	Low's Patent Copper Smelting Company	9	1 0 6 to July	0 4 6 to July 1	10	
20000	Mining Company of Ireland (copper, lead, and coal)	7	7 10 6 to Feb., 1847	7 p. ct. p. annum	4½	
200	North Pool (copper and tin), Pool	22½	217 10 to 1st Sept.	7 10 to Sept.	212½	210 217
140	North Roskear (copper), Camborne	10	226 0 to ditto	6 0 to Sept.	180	
6000	North Wheal Basset (copper and tin)	½	1 1 to 5th April	—	10	10
128	Par Consols (copper), St. Blazey	55½	374 0	—	650	
1160	Perran St. George (copper and tin)	21½	1 15 to June	0 10 to 4th June	41	40
200	Phœnix (copper and tin), Linkinghorne	30	10 0 0 to March 5	5 0 to March	240	
560	Providence Mines (tin), Uny Lelant	20½	18 4 6 to Aug.	0 15 to Aug.	25	27½
256	South Caradon (copper), St. Cleer	2½	255 0 to July	2 10 to July	122½	125 122½
256	South Tolgus (copper), Redruth, Cornwall	16	27 0 to 5th Aug.	3 0 to Aug.	140 145	140 145
248	South Wheal Frances (copper), Illogan	80	101 15 to Sept.	6 0 0 to Sept.	220	200
1024	Spearne Consols (tin), St. Just, Cornwall	1½	3 7 6 to June	0 12 6 to June	9	
94	St. Ives Consols (tin), St. Ive's	80	859 0 to Aug.	4 0 to Aug.	80	
1000	Stray Park and Camborne Vean (copper), Cornwall	15	11 10	—	12	12½ 11
9600	Tamar Consols (silver-lead), Beeralston	4	2 11 to July, 1849	—	4	4 3½
6000	Tincroft (copper and tin), near Pool	7	5 17 6 to Sept.	—	7	7½
256	Trehane (silver-lead), Menheniot	1½	27 15 to Sept.	1 0 to Sept.	15½	15 15½
5000	Treleigh Consols (copper), Redruth	6	1 3 to Oct., 1847	0 5 Oct. 1847	2½	2½ 3½
96	Tresavean (copper), Gwennap, Cornwall	20	1680 15 to 1848	—	200	
120	Trethellan (copper), Gwennap, Cornwall	5	402 10 to 5th April	—	13	
120	Treviskey and Barrier (copper)	130	239 15 to August	9 10 to Aug.	200	205 202½
1024	Wellington (copper & tin), Perranuthnoe	6½	2 2 6 „	0 5 to March	5½	4½
256	West Caradon (copper), Liskeard, Cornwall	20	162 15 to Sept.	2 10 to Sept.	102½	100 95 97½
512	West Providence (tin), St. Erth	10	—	—	97½	95 97½
256	Wheal Basset (copper), Illogan	10½	245 0 to 3d Aug.	10 0 to 3d Aug.	390	400 375 372½
256	Wheal Brewer (copper), Gwennap, Cornwall	2	5 0	—	10	7½
256	Wheal Buller (copper), Redruth	5	96 10 to 1st Aug.	12 10 to Augnst	550	550
126	Wheal Friendship (copper) Devon	120	2331 10 to Aug.	6 0 to Aug.	125	130
5000	Wheal Golden Consols (silver-lead), Perranzabuloe	3	1 0 to July	0 5 to July	9½	10
430	Wheal Lovel (tin), Helston	—	8 0 to 8th Sept.	2 0 to Sept.	32½	
112	Wheal Margaret (tin), Uny Lelant	79	187 0 to Aug.	5 0 to Aug.	150	
512	Wheal Mary Ann (lead), Menheniot	5½	21 5 to 21st Aug.	3 0 to Aug.	58 59	58
40	Wheal Owles, St. Just, Cornwall	200	—	—	280	
240	Wheal Reeth (tin), Uny Lelant	20½	27 10 to Augnst	2 10 to Aug.	90 85	85 82
198	Wheal Seton (tin and copper), Camborne, Cornwall	107	194 10 to 5th Aug.	4 0 to Aug.	200	200 196½
520	Wheal Trelawny (silver-lead), Liskeard, Cornwall	3½	26 10 „	2 0 to May	48 49	49
1024	Wheal Tremayne (tin and cop.), Gwinear, Cornwall	9½	6 0 to Aug.	0 10 to Aug.	26	26
5000	Wicklow (copper), Wicklow	5	313 per cent. „	18 p. ct. end Aug.	25½ ½	

FOREIGN MINES.

Shares.	Mines.	Paid.	Dividends per Share Declared.	Last Paid.	Last Price.	Present Price.
5000	Alten Mining Company (copper), Norway	14½	3 0 0 to Mar., 1848	—	2	
10600	Brazilian Imperial (gold), Brazil	24½	3 17 6 to Dec., 1844	—	2½	
12000	Cobre Copper Company (copper), Cuba	40	45 12 0 to June 1851	3l. to June	33½	33
10000	Copiapo Mining Company (copper), Chili	14	3 3 0 to Oct., 1850	8s. to Oct., 1850	5½ 6	
20000	General Mining Association (iron & coal), Nova Scotia	20	6 10 0 to June, 1851	10s. June, 1851	12	
2700	Marmato (gold), Columbia	2½	2 0 0 to June, 1851	1l. to June, 1851	7	
5051	Mexican Company (silver), Mexico	59½	0 8 6 end of 1846	4s. in 1846	—	
7000	Royal Santiago (copper), Cuba	10	33 4 0 to July, 1846	—	2 2½	2½ 2½
11000	St. John del Rey (gold), Brazil	15	12 17 6 to Dec., 1850	1l. 10s. to June 7	18½	19
42174	United Mexican (silver), Mexico ... Av.	28½	1 12 6 to Feb. 1850	7s. 6d. to Feb., 1850	—	2½ 2

Shares.		Paid.	Last Price.	Present Price.
1024	Appledore (silver-lead and cop.) St. Ives	3	2	
940	Balnoon Consols (tin), Uny Lelant	—	3	3
508	Bell and Lanarth (copper), Gwennap	6	3	
1500	Bishopstone (silver-lead), Glamorganshire	2½	10	
32	Black Burn, Alston, Cumberland	20	100	
5000	Black Craig (lead), Kirkcudbrightshire	5	3	3
8000	Blaenavon (iron), South Wales	50	12	
1024	Bodmin Consols (lead), Wadebridge	6	4	4
5000	Bodmin Moor Consols (tin and copper)	1	3½ 4	
1024	Bodmin Wheal Mary (copper), Bodmin	8	6	6
6000	Bolenowe	2½	4	
120	Bolowall and Nanpean (tin), St. Just	20	18	
1024	Boringdon Park (silver-lead), Plympton	2	3	5
240	Boscean (tin), St. Just	15	9	
2400	Bosorn (tin), St. Just	1	2	
1024	Bottle Hill (copper) Plympton	1	1	
10000	British Iron, New, regis. (iron)	12	8	
—	Ditto ditto, scrip	10	10	
2000	Bronfloyd (lead)	1½	1½	1½
2400	Bryn-Arian (lead), Cardiganshire	2½	1½ 2	
812	Butterdon (lead), Menheniott	3½	8	8 8½
2000	Bwlch Consols (silver-lead), Cardiganshire	4	1½	
1000	Cae-Gynon (silver-lead), Cardiganshire	½	4½	
4000	Calstock United (copper)	5	4½	5
3000	Cally (copper and lead), Kirkcudbrightsh.	1	1½	
1000	Camborne Consols (copper), Camborne	7	4	
20000	Cameron's Steam Coal (coal), Swansea	10	2 2½	
1168	Caradon Great Cons. (cop.), Linkinhorne	7	2	
1536	Caradon Vale (copper and lead), St. Ive	3½	2½	
6000	Caradon Wood (lead), Linkinghorne	—	2½	
2000	Carbona (tin and copper), Crowan	5	4	
510	Carn Galver (tin), Morvah and Zennor	2½	3½	
5120	Carn Valley, St. Dennis	1	2	
3000	Carthew Consols (cop. & lead), Wadebridge	4½	4	
1056	Carvannall (copper), Gwennap	3½	9	6½
2000	Cassandra Anne (lead & cop.), Stoke Clim.	5	5½	
2048	Castle Dinas (tin), St. Columb	½	2	1½ 2
200	Cefn Bruno (lead), Cardiganshire	13	54	
5000	Cefn Gwyn (silver-lead), Cardigan	1	1½	
1024	Chyprase (tin and copper), St. Enoder	3½	5½	
1024	Clijah and Wentworth (tin & co.), Redruth	1½	2½	2
1000	Cockley Beck (copper)	½	1	2
2000	Coed Mawr Pool (lead), Llawrnst	10	10	
2510	Cook's Kitchen (copper and tin), Illogan	15½	4	4
1000	Copper Bottom (copper), Crowan	7	4½	
900	Court Grange (silver-lead), Cardiganshire	10	12	
211	Craddock Moor (copper), St. Cleer	30	8	
1600	Craig-y-Mwyn (lead), Llanrhiadr, Mont.	8½	10½	
256	Crane and Bejawsa (copper), Camborne	20	25	
1000	Cwm Daren	1	3½	
1000	Cwm Erfin (lead), Cardiganshire	6	3½	
2000	Cwm Sebon	—	4	
128	Cwmystwith (lead), Cardiganshire	60	100	
2000	Cyfannedd Fawr (lead), Lanegryn	½	1	
3000	Dairhiew (copper and lead), Brecon	1½	10	
1000	Daren (silver-lead), Cardiganshire	2	6	
7100	Derwent (silver-lead), Durham	10	2	
5000	Devon Consols North (cop.), Lamerton	2½	½ 1	
4023	Devon and Courtenay Consols (copper)	2½	1	
768	Devon Great Tincroft, North Bovey	½	6	4
5120	Dhurode (copper) Ireland	2	5	
672	Ding-Dong (tin), Gulval	5	7	
4000	Dolfrwynog (copper), Merioneth	½	1	
2560	Drake Walls (tin and copper), Calstock	6½	5½	5½ 6
128	Drift Moor (tin), Sancreed	2	2	
1536	Duke of Cornwall (copper), St. Winnon	1	2	
3000	Dyfngwm (lead)	10½	9½	
1024	East Balleswidden (tin), Sancreed	2½	2½	2
256	East Basset (copper) Redruth	10	16	
2500	East Birch Tor, (tin), near Ashburton	3	3	
2048	East Boringdon Park, Plympton	½	½ ½	½ 1
1024	East Buller (copper), near Redruth	3½	4½	
128	East Carn Brea (copper), Redruth	4	2½	
1948	East Crowndale (copper), Tavistock	7½	1½	
300	East Daren (lead), Cardiganshire	13	30	20
256	East Godolphin (copper), Crowan	22½	19	
4000	East Gunnis Lake Junction (copper)		2	
512	East Seton and Wheal Maude, Redruth	5½	3	
9000	East Tamar Consols (sil.-lead), Beerferris	1½	1	½
256	East Tolgus (copper), Redruth	8	7	9
1000	East Trescoll	1		3½ 4
256	East Wheal Frances (copper), Illogan	6½	6	
2048	East Wheal George (cop.), Walkhampton	1	3½	4 3½
2048	East Wheal Josiah (copper), Tavistock	1½	½ ½	
512	East Wheal Leisure (copper)	12	16½	15½ 16½
1024	East Wheal Margaret (tin and copper)	1½	4½	
3000	East Wheal Rashleigh, Lanreath	8s	½	
1000	East Wheal Reeth	1½	1½	1½
4000	East Wheal Russell (copper), Tavistock	½	4	4 5
1280	Esgair Llee Llanfihangel-y-Croythin	4½	5½	
1024	Exmoor Eliza (copper), South Molton	4	3	
6000	Forest (copper and silver-lead), Devon	1½	1	
1024	Freidd Llwydd Mines (lead)	1½	3½	
12000	Gallt y-Maen (silver-lead), Merioneth	2	2½	
2560	Garras (silver-lead), near Truro	5½	2½	
5000	Garreg (lead), Flint		1½	
1000	Gelli-rei-vin (silver-lead), Cardiganshire	1	5	

Shares.		Paid.	Last Price.	Present Price.
2500	Georgia Consols (tin), St. Ive's	2½	7	5
256	Gonamena (copper), St. Cleer	47	12	
243	Grambler and St. Aubyn (copper)	84	34	
6500	Great Bryn Consols (copper and tin)	1	2	
10000	Great Cowarch (silver-lead), Merioneth	2	3	
1000	Great Polgooth (tin), St. Austell	3	2½ 3	3 3½
1024	Great Sheba Consols (tin and copper)	8½	4½ 4	3½
1024	Great Wheal Alfred, St. Erth and Phillack	4½	3½ 4	3½ 4
5120	Great Wheal Baddern (tin and silver-lead)	2	4	4
5000	Great Wheal Martha (cop.), Stoke Clims.	—	1	
512	Great Wheal Rough Tor Consols (copper)	29	19	15
1026	Gustavus Mines (copper), Camborne	6½	5	
512	Hawke's Point (copper), Uny Lelant	8½	3	3½
6000	Hingston Down Con. (copper), Calstock	2½	3	3
32	Helvellin Mining Company, Westmoreland	20	30	20
1500	Hennock (silver-lead), Hennock	3	3	1½
10000	Hibernian (copper) Ireland	12½	½	
20000	Kenmare and West of Ireland (copper)	1	2	
1900	Keswick (lead), Portinscale, near Keswick	11	2	
3300	Kilbricken (silver-lead), Clare, Ireland	3	3	
1024	Kingsett and Bedford (lead and copper)	4½	1½	
1024	La Min (Gwinear), tin and copper	3½	6	4
1742	Lamherooe Wheal Maria (copper & tin)	13	8	8 7
5000	Lampen Consols (copper), St. Neot	1	1	
252	Lanarth Consols (copper), Gwennap	4	4½	
256	Lelant Consols (tin), Uny Lelant	62	22	
13000	Llwynmalees (lead), Cardiganshire	1	½	
5056	Lydford Consols (lead)	—	1½	
6000	Marke Valley (copper), Caradon	10	2	
512	Melin Llyn (silver-lead), Merionethshire	1	1	
5000	Mendip Hills (lead), near Bristol	3½	2½	2½
5000	Merllyn (lead), Flint	2½	3 3½	3½
1024	Mill Pool (tin and copper), St. Hilary	2	2½	
256	Mineral Court (tin), near St. Austell	25½	17	
1024	Moditonham & Marrabro' (copper & lead)	2½	2½	
2000	Molland	1	1½	
160	Morvah Consols (tin and copper)	2	3	
320	Nansegollan (tin and copper), Camborne	7	7	
200	Nanteos (lead), Cardiganshire	34	30	
3000	Nant-y-Car (copper), near Rhayader	2	9	7
5000	New Copper Bottom (copper) Bridestowe	1½	1½	
2048	New East Crowndale (copper and tin)	1½	½ ½	½ ½
1024	North Buller (copper), Redruth	5	17½	
2000	North Downs (copper), Redrnth	½	½	
256	North Fowey Consols	—	12½	
2000	North Levant (tin and copper), St. Just	1½	2½	
2000	North Tamar (silver-lead & copper) Devon	2	2	
256	North Tolgus (copper), Redruth	11½	9	5½
256	North Trefusis (tin and copper), Redruth	1	½	
1200	North Wh. Buller, or Gt. South Tolgus	6	6	8½
262	North Wheal Leisure, Perranzabuloe	1½	1½	
1024	North Wh. Robert (copper), Walkhampton	3	1½	
1060	North Wheal Trelawny (lead), Quethiock	—	—	
2048	Okel Tor (lead)	½	½	
512	Old Brimpts (tin), Lydford, Ashburton	1½	2½	
256	Old Wheal Basset (copper), Redruth	2	2	
1026	Pendarves Consols (copper), Camborne	3½	4	
1000	Pendarves and St. Aubyn (tin and copper)	5	8	7
406	Penhauger	1	3	2
4934	Pennant and Craigwen (lead)	3	4	
1000	Penralt	1	3	
2048	Pentire Glaze (silver-lead), St. Minver	5½	5	
700	Pen-y-bank and Erglodd (lead)	4½	3½	
1024	Penzance Consols (tin), Sancreed	2½	1½ 1½	1½ 1½
1000	Peter Tavy and Mary Tavy (copper)	4½	8 9	8 9
2048	Plymouth Wh. Yeoland Con. (tin), Plym.	1½	5	1½ 1½
1000	Polberro (tin), St. Agnes	15	13½	
2000	Polgear (copper and tin)	1	3	
1024	Praed Consols (tin), Towednack	1½	1½ 1½	
1024	Prince Albert (tin), Perranzabuloe	1	1	
2500	Rhoswydol and Bacheiddon (lead)	10½	6	
10000	Rhymney Iron (iron), Rhymney	50	12	
10000	Ditto New	7	½	
1948	Rix Hill (tin), Tavistock	1	3	
5000	Rocks and Treverbyn (tin), St. Austell	4½	4	
2048	Runnaford Coombe (tin)	3	2½	
1024	Sidney Godolphin (copper), Breage	3½	2	
10000	Silver Valley & Wh. Brothers (silv.-lead)	1	1½	1½ 1½
2048	Snowdon (copper), Carnarvonshire	3	3	
1024	Sourton Consols	2½	3½	
2000	South of Scotland	1½	6	
2000	South Carn Brea (copper), Illogan	10	7	
256	South Friendship Wh. Ann (copper & tin)	30	28	
1024	South Plain Wood (copper), Ashburton	4½	6	
300	South Speed (copper and tin), Uny Lelant	15	30	
9000	South Tamar (silver-lead), Beer Ferris	1½	2½ 2½	
198	South Trelawny (lead), near Liskeard	35½	4	
2000	South Wales Mining Company (lead)	1½	2½	
256	South Wheal Josiah (copper), Calstock	2	1½	
280	Spearne Moor (copper), St. Just	30	40	
1024	St. Aubyn and Grylls (copper and tin)	3	4	
12000	St. Enoder (copper and lead) St. Enoder	1	1½	
999	St. Minver Consols (silver-lead)	1	3	
687	Tavy Consols (copper), near Tavistock	8½	1½	3½
5000	Temple Consols (tin & copper) Cornwall	2	5	
128	Tokenbury (copper), St. Ive, Liskeard	10½	10	
1200	Tolcarne (tin and copper), Camborne	2½	½	

Shares.		Paid.	Last Price.	Present Price.
1024	Trannack and Bosence, St. Erth	1½	3½	
1024	Trannack United Mines (tin and copper)	1½	3½	
1024	Trebarvah, Perranuthnoe	1	4½	
2048	Trebell Consols (tin and copper), Lanivet	1½	1½	1½
600	Tregardock (lead), St. Teath	1½	5	
224	Tregorden (silver-lead) Wadebridge	15½	10	
1000	Treloweth (copper), St. Erth	5	4½	5
600	Trelyon Consols (tin), St. Ive's	4½	5	
940	Tremar (copper), Liskeard	1½	½ ½	
2000	Trenance (copper), Helston	6	5	
6000	Trenault (lime quarries)	21s	21s	
512	Trethevy (copper), St. Cleer	11½	3½	4½
512	Treville (lead), Lewanick	4½	5 6	
604	Trowan Consols (tin), Towedneck	7	9	
100	Trumpet Consols (tin), near Helston,	95	100	
4000	Tyn-y-Worglod (slate), near Carnarvon	4	4	
500	Tywarnhayle (cop.), Illogan & St. Agnes	60	22	
512	Tywardreath (copper), St. Blazey	4	12½	
1024	United Mines (copper and tin), Tavistock	12	10	
200	United Mines (copper), Gwennap	300	75	
5000	Warleggan Consols (copper)	½	½ ½	
1024	West Alfred Consols	8½	13 14	13½ 12½
5000	West Basset (copper), Illogan	½	5½	
1024	West Beam (tin), St. Austell	24s 6d.	½	
256	West Damsel (copper), Gwennap	5½	45	51½
1024	West Ding-Dong (tin)	1	2½	
512	West Fowey Con. (tin & cop.), St. Blazey	40	60	
2048	West Goginan (silver-lead), Cardiganshire	1½	3	
1024	West Par Consols (copper), St. Blazey	10	10	
1024	West Phœnix, Linkinghorne	5	6	
6500	West Polgooth (tin), St. Ewe & St. Mewan	1	½	
200	West Seton (copper), Camborne	71	115	
256	West Sharp Tor (copper) Linkinghorne	22	49	
940	West Tolgus (copper), Illogan	14½	4½	
120	West Trethellan (copper), Gwennap	15	10	
5000	West Wheal Alfred	1½	1½	1½
512	West Wheal Frances (copper), Illogan	8	14	11
4000	West Wheal Friendship (copper)	1½	½	
3715	West Wheal Jewel (tin and copper)	12	1	1½
3715	Ditto preference		½	
2048	West Wheal Rose	2	1½	
4000	West Wheal Russell, Tavistock	½	½	
1024	West Wheal Sheba	10s	1	
500	West Wheal Towan (copper), Illogan	21	10	
1024	West Wheal Treasury (copper), Gwinear	8	3½ ½	
1024	West Wheal Virgin (tin), Sancreed	2	1½	
1024	Weston (lead), Cherbury, Shropshire	1½	½	
1070	Wheal Adams (lead), Christow, Exeter	13½	16	
1000	Wheal Agar (copper), Illogan	6	5	
300	Wheal Arthur (lead), near East Wh. Rose	17	49	
1228	Wheal Arthur (silver-lead&cop.), Calstock	1½	4	3½
3072	Wheal Augusta (tin), St. Just	1	1½	
240	Wheal Bal (tin), St. Just	5½	10	
2500	Wheal Caradon (copper), St. Cleer	2	2	
256	Wheal Carpenter (tin), Gwinear	1½	5	
1024	Wh. Carpenter (lead & cop.) S. Sydenham	3	4	3½ ½
124	Wh. Castle and Boswedden (tin & copper)	5	20	
1024	Wheal Catherine (silver-lead), Liskeard	2½	3	
1024	Wheal Crebor (copper), Tavistock	4	4	4 5
1024	Wheal Cupid (copper), Gwennap	1	2½	1½
3000	Wheal Dora (tin and copper), St. Cleer	3½	5½	
4096	Wheal Edward (copper), Calstock	½	1½	½
182	Wheal Elizabeth (copper), Redruth	23	5	1½
1024	Wheal Emma	½	5	
182	Wheal Ennis (lead), St. Erme	17	20	
1070	Wheal Enys (tin), Wendron	1½	1½	
5000	Wheal Fanny (lead)	—	3	
916	Wheal Fortescue (copper), Tavistock	5½	1½	½
2048	Wheal Fortune (lead), Landulph	2s	½	
764	Wheal Franco (copper), near Tavistock	14½	8	7 8
100	Wheal Friendly (tin), St. Agnes	70	31	
256	Wheal Gennys (lead), St. Buderœ	13	25	
1536	Wheal Gill (cop. and lead), Liskeard	3	2½	
2048	Wheal Hamlyn, near Oakhampton	1	½	
2560	Wheal Harriet (copper), Camborne	1	½	½ ½
2048	Wheal Harris (lead), near Tavistock	½	½	
216	Wheal Henry (copper), Kea, near Truro	25	8	
6000	Wheal Langford (copper and silver-lead)	½	½	
1000	Wheal Lemon, Germoe	1½	½	
1024	Wheal May (silver-lead and copper	2½	2½	
1024	Wheal Mary Ann (copper), Bridestow	—	2	
1024	Wheal Mary Emma, Tavistock	1½	1½	2½
1024	Wheal Maudlin, Llanlivery	1	4½	
1024	Wheal Neptune (copper), Perranuthnoe	2	2½	
1080	Wheal Oak, near Helston	1½	1½	
3000	Wheal Penhale (lead and copper)	2½	3½	
128	Wheal Plenty (copper), Redruth	29	38	
128	Wheal Pollard (copper), St. Cleer	15½	10	
5000	Wheal Providence, South Sydenham		3	
256	Wheal Prudence (copper), St. Agnes	3½	6	4
2048	Wheal Robins	½	1½	
4000	Wheal Russell (copper), Tavistock	1½	1½	1½
5000	Wheal Ruth (tin), Shepstor	2	2	
10000	Wheal Sampson	1	½	
512	Wheal Sophia (silver-lead), Lezant	7	6½	
1024	Wheal Speedwell (copper and tin)	2	2	
1024	Wheal Squire (copper), St. Erth	3	1½	3
256	Wheal St. Agnes (tin), St. Agues	1½	5	
1024	Wheal Stanagwyn (copper), St. Stephen's	1	½	
1000	Wheal Susan, Breage and Crowan	1½	1½	
1024	Wheal Sydney, Plympton	1½	4	
2000	Wheal Tom (tin & copper), Stoke Clims.	5	11½	
1000	Wheal Treasury	1	1½	
512	Wheal Trefusis (copper), Gwennap	8½	15	14
1024	Wheal Trelusback (copper), Stythians	5½	5	
256	Wheal Tremaine (copper), St. Ervan	11	1	
4224	Wheal Trewane (silver-lead), St. Kew	1½	5	
267	Wheal Tryphena (tin and cop.), Redruth	40	18½	
126	Wheal Union (copper), Redruth	40	40	
6000	Wh. Unity Consols (cop. & tin), Gwinear	2	3½	3½
1024	Wheal Uny (tin and copper)	3	5½ 6	
1024	Wheal Venton (silver-lead), Liskeard	4½	7	7 6½
4000	Wheal Victoria (copper)	—	2½	
1000	Wheal Vincent (tin), Alternum	7½	7½	
512	Wheal Violet (tin and cop.), St. Stephens	1½	3½	
256	Wheal Vlow	2	1	
4000	Wheal Williams (copper)		½	2 1½
1024	Wheal Wrey (lead), St. Ive, Liskeard	2s 6d	2	
4096	Wheal Zion (copper and lead), Tavistock	1½	7 8	8

Shares.	FOREIGN MINES.	Paid.	Present Price.
12000	Annotto Bay Mining Association (copper), Jamaica	1	5
19000	Australian (copper), South Australia	5	½
3250	Kinzigthal Mining Association (silver), Germany	2½	2
12000	Liguanea and General Mining Company of Jamaica	1	2½
5000	Linares (lead), Spain	3	1
500	Ditto Preference	3	3
4500	Ditto Additional	1	1½
20000	Mexican and South American (copper), Mexico	4½	4½
5000	National Brazilian (gold), Brazil	30	2½ 2½
104000	North British Australasian (copper), S. A. & New Zea.	1	½
110000	Worthing (copper), Adelaide, South Australia	4	2½

ACCIDENTS.

Merthyr.—G. Roach was killed by a fall of coal in the Cethin pit.

Wigan.—James M'Donald was killed by an explosion in the No. 1 Ince Hall Colliery.

Brierley Hill.—J. Cartwright was killed by an explosion in a pit belonging to the New British Iron Company.

Durham.—T. Alderson was killed by the falling of a large stone, while hewing coal in the Willington Colliery.

St. Helens.—A boy, named Swift, was killed by a fall of roof at the Broad Oak Colliery.

Falkirk.—T. Sneddon was killed, and a companion much injured, by the falling of a piece of timber in one of the pits at Blackbraes Colliery.

Rowley.—J. Cartwright, the "doggy" of the pit, was killed by an explosion at the Bearmore Colliery.—A companion saved his life by falling on his face.

COAL MARKET, LONDON.

MONDAY.—Ships at market, 39; sold, 35.

WEDNESDAY.—Ships at market, 115; sold, 95.

FRIDAY.—Ships at market, 57; sold, 47.

Delivery of coals, &c., in the port of London during the month of August:—

	Ships	Tons
Newcastle	367	109,580
Sunderland	169	45,883
Seaham	159	37,858
Stockton, Middlesbro', &c.	269	69,268
Blyth	48	10,779
Scotch	8	1,338
Welsh	42	10,072
Yorkshire, &c.	14	800
Small coal	5	1,229
Culm	1	323
Cinders	11	617
Total imported in July, 1851	1091	287,846
Imported in August, 1850		299,035

Inland coals brought by canal, in the month of July, 1851, upon which the City's and other dues were received ... Tons 1399½

Comparative Statement of 1850 and 1851.

	Ships	Tons
Imported from January 1 to Aug. 31, 1850	8082	2,250,300
Imported from January 1 to Aug. 31, 1851	7456	2,032,301
Decrease in the present year	626	218,059

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